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=> d his
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(FILE 'HOME' ENTERED AT 09:43:13 ON 03 JUL 2000)
                SET COST OFF
     FILE 'REGISTRY' ENTERED AT 09:43:28 ON 03 JUL 2000
                E ISOQUERCITRIN/CN
              1 S E3
L1
                E C21H20O12/MF
              9 S E3 AND OC5-C6/ES AND 46.150.18/RID AND OC4/ES
L2
              9 S L2 AND 5 7 AND 4 ONE
L3
              7 S L3 AND 2 3 4
L4
              2 S L4 AND GLUCOFURAN?
L5
              7 S L2 NOT L5
L6
              1 S L6 AND GALACTO?
ь7
                SEL RN L5
L8
              3 S E1-E2/CRN
     FILE 'HCAOLD' ENTERED AT 09:47:34 ON 03 JUL 2000
              0 S L5
Ь9
     FILE 'HCAPLUS' ENTERED AT 09:47:39 ON 03 JUL 2000
            646 S L5
L10
              3 S L8
L11
            648 S L10,L11
L12
              1 S L11 AND UV (L) FILTER
L13
               E BUCHHOLZ H/AU
             76 S E3, E4, E12, E13
L14
                E BUECHHOLZ H/AU
                E BEUCHHOLZ H/AU
                E WAGNER A/AU
            303 S E3-E18
L15
                E WAGNER ANNET/AU
             14 S E4-E8
L16
                E KRAUS C/AU
             22 S E3,E9,E10
L17
               E MEDUSKI J/AU
              7 S E5,E6
L18
              0 S L12 AND L14-L18
L19
              8 S L14 AND L15-L18
L20
              1 S L15, L16 AND L17, L18
L21
              1 S L17 AND L18
L22
             1 S L21, L22 AND L20
L23
L24
            700 S ISOQUERCITIN? OR ISOQUERCITRIN? OR ISOQUERCITROSID? OR ISOTRI
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                E ISOQUERCITIN/CN
                E ISOQUERCETIN/CN
              1 S E3
T<sub>2</sub>5
                E C21H20O12/MF
             66 S E3 AND OC5-C6/ES AND 46.150.18/RID AND OC5/ES
L26
              4 S L26 AND 2 3 4 DIHYDROXYPHENYL 3 AND 5 7 DIHYDROXY AND 4 ONE
1.27
              4 S L25, L27
L28
                SEL RN
L29
             61 S E1-E4/CRN
     FILE 'HCAPLUS' ENTERED AT 09:54:31 ON 03 JUL 2000
           1965 S L28
L30
            287 S L29
L31
                                                                       Point of Contact:
              5 S L14-L18 AND L30, L31
L32
                                                                          Jan Dolaval
L33
              5 S L23, L32
                                                                   Librarian-Physical Sciences
              4 S L20-L23 NOT L33
L34
                                                                    CM1 1E01 Tel: 308-4498
              9 S L33, L34
L35
              1 S L35 AND (?VIRAL? OR ?VIRUS? OR ?VIRUC? OR ?HERPE?)
L36
             1 S L35 AND (UV OR ULTRAVIOL? OR ULTRA VIOL?)
L37
L38
              1 S L36, L37
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L39
              2 S L13, L38
              1 S L35 AND LIGHT
L40
              2 S L38-L40
L41
              8 S L35 NOT L41
T.42
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                E BENZOPHENONE/CN
L43
              1 S E3
                E BENZOYLMETHANE/CN
                E DIBENZOYLMETHANE/CN
              1 S E3
L44
                E CINNAMIC ACID/CN
              1 S E3
L45
                E ISOAMYL METHOXYCINNAMATE/CN
              1 S 71617-10-2
L46
                E C15H20O3/MF
L47
              1 S E3 AND 46.150.18/RID AND 1/NR AND 2 PROPENOIC AND 3 METHOXYPH
             11 S E3 AND 46.150.18/RID AND 1/NR AND 2 PROPENOIC AND METHOXYPHEN
T.48
              6 S L48 NOT METHOXYPHENYL 2 METHYL
T.49
              1 S 5466-77-3
L50
                E C18H26O3/MF
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L51
L52
              1 S 15087-24-8
              1 s 150-13-0
L53
              1 S 6197-30-4
L54
              1 S 1314-13-2
L55
              1 S 13463-67-7
L56
L57
              1 S 15176-29-1
                E C11H16N2O5/MF
             21 S E3 AND NCNC3/ES AND OC4/ES AND URIDIN?
L58
              5 S L58 AND DEOXY 5 ETHYL
L59
              1 S 117-39-5
L60
              1 S 548-83-4
L61
              1 S 520-18-3
L62
                E PROPOLIS/CN
              1 S E4
L63
              1 S 480-40-0
L64
              1 S 520-36-5
L65
              1 s 491-70-3
L66
              1 S 529-44-2
L67
              1 S 480-44-4
L68
              1 S 552-58-9
L69
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              4 S E3 AND 46.150.18/RID AND OC5-C6/ES AND 4 ONE AND 3 4 DIHYDROX
L70
L71
              3 S L70 AND 2 3 4
              1 S 480-19-3
L72
              3 S 50-81-7 OR 10504-35-5 OR 62624-30-0
L73
              1 S 522-12-3
L74
                E CATECHOL/CN
              2 S E3
L75
              1 S L75 AND 3/NR
L76
L77
              1 S 520-33-2
                E C16H14O6/MF
L78
             93 S E3 AND 46.150.18/RID AND OC5-C6/ES
T.79
              5 S L78 AND 4 ONE AND 2 3 DIHYDRO AND 5 7 DIHYDROXY AND 2 3 HYDRO
              3 S L79 NOT 14C?
1.80
T.81
              1 S 153-18-4
             25 S L43-L47, L49-L56
1.82
             23 S L57, L60-L69, L71-L74, L76, L77, L80, L81
L83
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L84
         147066 S L82
L85
          53877 S L83
L86
           2579 S L12, L24, L30, L31
L87
             25 S L86 AND L84
           1867 S L86 AND L85
L88
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1869 S L87, L88
L90
              5 S L89 AND L14-L18
              6 S L13, L41, L90
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          246 S L92 AND (1 OR 62 OR 63)/SC
           19 S L93 AND (?VIRAL? OR ?VIRUS? OR ?VIRUC? OR ?HERPE?)
L95
            19 S L93 AND (UV OR ULTRAVIOL? OR ULTRA VIOL? OR SUNLIGHT? OR LIGH
            78 S L93 AND (MIX? OR SYNERG? OR FORMUL? OR COMBIN? OR COMPOSITION
L96
            16 S L96 AND L94, L95
L97
             3 S L97 AND (MIX OR FORMULATION OR COMBINATION)
L98
L99
             7 S L91, L98
            780 S L12 OR ISOQUERCITRIN?
L100
            596 S L100 AND L84, L85
L101
           142 S L101 AND (COMBIN? OR FORMUL? OR MIX? OR SYNERG? OR COMPOSITIO
L102
           138 S L102 AND (PY<=1999 OR PRY<=1999 OR PRY.B<=1999 OR AY<=1999 OR
L103
L104
             3 S L103 AND (?VIRUS? OR ?VIRUC? OR ?VIRAL? OR ?HERPE?)
L105
            21 S L103 AND (UV OR ULTRAVIOL? OR ULTRA VIOL? OR SUNLIGHT? OR LIG
L106
             9 S L99, L104
             7 S L106 NOT (FOREST OR BRAZILIAN)/TI
L107
             20 S L105 NOT L106
L108
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=> fil hcaplus

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FILE COVERS 1967 - 3 Jul 2000 VOL 133 ISS 2 FILE LAST UPDATED: 2 Jul 2000 (20000702/ED)

This file contains CAS Registry Numbers for easy and accurate

substance identification.

This file supports REGISTRY for direct browsing and s Huis full all substance data from the REGISTRY file. Enter HEI

The information.

Now you can extend your author, patent assignee, pater and title searches back to 1907. The records from 190 this searchable data in CAOLD. You now have electroni of CA: 1907 to 1966 in CAOLD and 1967 to the present i

=> d 1107 all tot

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L107 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2000 ACS
    2000:314555 HCAPLUS
     132:326034
DN
TI
     Compositions comprising a mixture of bioflavonols
TN
    Buchholz, Herwig; Meduski, Jerzy
    Merck Patent G.m.b.H., Germany
PΑ
    PCT Int. Appl., 14 pp.
     CODEN: PIXXD2
DT
    Patent
LА
    English
     A61K031-70; A61K031-70; A61K031-70
IC
     63-4 (Pharmaceuticals)
     Section cross-reference(s): 17
```

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE _____

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WO 2000025795
                      A1
                            20000511
                                          WO 1999-EP7865
                                                            19991016
PΙ
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI EP 1999-105035
                     19990322
     The present invention relates to novel compns. contq. a mixt. of two or
AB
     three bioflavonols like isoquercetin, quercetin-4'-glycoside, rutin and
     quercetin, which show differences in their pharmacokinetics. These
     compns. are useful as food supplements possessing preventive properties
     against damage to human tissues due to their antioxidant properties.
     Furthermore, these compns. secure a continuum of the presence of
     bioflavonols having the same aglycon in human plasma over an extended
     period of time. A compn. contained 400 mg rutin and 100 mg isoquercetin.
ST
    bioflavonol compn antioxidant
     Flavonoids
TТ
     RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (bioflavonoids; bioflavonol antioxidant compn.)
IT
     Nutrition, animal
        (bioflavonol antioxidant compn.)
IT
     Flavones
     RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (hydroxy; bioflavonol antioxidant compn.)
IT
     Antioxidants
        (pharmaceutical; bioflavonol antioxidant compn.)
     117-39-5, Quercetin 153-18-4, Rutin 482-35-9,
IT
     Isoquercetin
                  20229-56-5, Quercetin 4'-qlucoside
     RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (bioflavonol antioxidant compn.)
RE.CNT 10
RE
(1) Derwent Publications Ltd; DATABASE WPI
(2) Derwent Publications Ltd; DATABASE WPI
(3) Derwent Publications Ltd; DATABASE WPI
(4) Hollmann, P; CANCER LETTERS 1997, V114, P139
(5) Hollmann, P; FEBS LETTERS 1997, V418, P152
(6) Kato, K; JP 06199693 A 1994
(7) Kato, K; JP 06199697 A 1994
(8) Merck Patent Gmbh; WO 9944578 A 1999
(9) San-Ei Chem Ind Ltd; JP 04099771 A 1992
(10) Wagner, H; GUSTAV FISCHER VERLAG 1985
L107 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2000 ACS
     2000:314527 HCAPLUS
ΑN
DN
     132:326078
     Compositions for the treatment and prevention of cardiovascular diseases
ΤI
IN
     Buchholz, Herwig; Meduski, Jerzy D.
PA
     Merck Patent G.m.b.H., Germany
SO
     PCT Int. Appl., 18 pp.
     CODEN: PIXXD2
ĎΤ
     Patent
     English
LA
IC
     ICM A61K031-00
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1, 17
FAN.CNT 1
                     KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
     _____
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                                                            19991013
ΡI
     WO 2000025764 A2
                           20000511
                                          WO 1999-EP7689
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W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
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             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1998-106205
                      19981030
     Compns. comprising one or more active ingredients and, optionally, one or
AB
     more nutritional substances, solid, liq. and/or semiliquid excipients or
     auxiliaries, wherein the active ingredients consist of a) a consisting of
     one or more compds. selected from Me and methylene donors, b) a consisting
     of one or more Me transporters, and c) a consisting of one or more
     bioflavonoids are well-suited for the treatment and prevention of
     transmethylation disorders, preferably cardiovascular diseases such as
     atherogenic and thrombogenic diseases. A compn. was prepd. contg. betaine
     600, Ca L-5-methyltetrahydrofolate 0.5, and isoquercetin 500 mg.
     cardiovascular disease pharmaceutical; methyl transporter cardiovascular
ST
     disease pharmaceutical; bioflavonoid cardiovascular disease pharmaceutical
IT
     Flavonoids
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (bioflavonoids; compns. for treatment and prevention of cardiovascular
        diseases)
IT
     Cardiovascular agents
     Nutrients
        (compns. for treatment and prevention of cardiovascular diseases)
IT
     Drug delivery systems
        (tablets; compns. for treatment and prevention of cardiovascular
        diseases)
    Methylation
TT
        (transmethylation, biol., disorders; compns. for treatment and
        prevention of cardiovascular diseases)
     56-45-1, L-Serine, biological studies 58-05-9
                                                       107-43-7, Betaine
IT
     107-97-1, Sarcosine 117-39-5, Quercetin 134-35-0,
     5-Methyltetrahydrofolic acid 153-18-4, Rutin 482-35-9,
     Isoquercetin 482-36-0, Hyperin
                                      491-50-9, Quercimeritrin
     1118-68-9, Dimethylglycine
                                  2800-34-2, 10-Formyltetrahydrofolate
                 10360-12-0
                             20229-56-5, Spiraeosid
                                                       139418-88-5, L-Glutamic
     3432-99-3
     acid, N-[4-[[(2-amino-1,4,5,6,7,8-hexahydro-5-methyl-4-oxo-6-
     pteridinyl)methyl]amino]benzoyl]-, calcium salt
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (compns. for treatment and prevention of cardiovascular diseases)
L107 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2000 ACS
     2000:289127 HCAPLUS
ΑN
     132:307347
DN
     Procedure for enzymic splitting of rutinosides
ΤI
     Buchholz, Herwig; Koppe, Thomas; Schleehahn, Michael
IN
     Merck Patent G.m.b.H., Germany
PA
     Ger. Offen., 8 pp.
SO
     CODEN: GWXXBX
DT
     Patent
LΑ
     German
IC
     ICM C12P019-02
     ICS C07H003-02
     16-2 (Fermentation and Bioindustrial Chemistry)
CC
FAN.CNT 1
                     KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
                      ____
                                           DE 1998-19850029 19981030
                     A1
                            20000504
ΡI
     DE 19850029
                                           WO 1999-EP7686
                                                          19991013
                     A1 20000511
     WO 2000026400
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
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JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,

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MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI DE 1998-19850029 19981030
    MARPAT 132:307347
os
     A procedure for the enzymic hydrolysis of rutinosides for the prodn. of
AB
     rhamnose and/or their corresponding glucopyranosides is described, which
     is carried out in a solvent mixt. of water and one or several org.
     rhamnose prodn rutin hydrolysis enzyme
st
     3615-41-6P, Rhamnose
IT
     RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); PUR
     (Purification or recovery); BIOL (Biological study); PREP (Preparation)
        (enzymic hydrolysis of rutinosides for the prodn. of rhamnose and their
        corresponding glucopyranosides)
     153-18-4, Rutin
                      604-80-8
                                  17650-84-9
IT
     RL: BPR (Biological process); RCT (Reactant); BIOL (Biological study);
     PROC (Process)
        (enzymic hydrolysis of rutinosides for the prodn. of rhamnose and their
        corresponding glucopyranosides)
     64-17-5, Ethanol, biological studies
                                            67-56-1, Methanol, biological
IT
     studies 79-20-9, Methyl acetate
                                         108-88-3, Toluene, biological studies
     1634-04-4, Methyl tert-butyl ether
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (enzymic hydrolysis of rutinosides for the prodn. of rhamnose and their
        corresponding glucopyranosides)
     480-10-4P 482-35-9P, Isoquercetin
                                         5041-82-7P,
IT
     4H-1-Benzopyran-4-one, 3-(.beta.-D-glucopyranosyloxy)-5,7-dihydroxy-2-(4-
     hydroxy-3-methoxyphenyl)-
     RL: BYP (Byproduct); PREP (Preparation)
        (enzymic hydrolysis of rutinosides for the prodn. of rhamnose and their
        corresponding glucopyranosides)
     9068-31-9, Naringinase 37213-47-1, Hesperidinase
IT
     RL: CAT (Catalyst use); USES (Uses)
        (enzymic hydrolysis of rutinosides for the prodn. of rhamnose and their
        corresponding glucopyranosides)
L107 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2000 ACS
     2000:161129 HCAPLUS
ΑN
     132:199077
DN
     Ascorbate-isoquercetin compositions
ΤI
IN
     Buchholz, Herwig; Meduski, Jerzy
     Merck Patent Gmbh, Germany
PA
     PCT Int. Appl., 19 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
IC
     ICM A61K031-35
     ICS A61K031-375; A23L001-302; A23L001-30
CC
     63-6 (Pharmaceuticals)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                     A1
                                           WO 1999-EP6166 19990823
                            20000309
PT
     WO 2000012085
        W: JP, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                      19980827
PRAI US 1998-141781
     The present invention relates to novel compns. contg. ascorbic acid and
AΒ
     one or more derivates of quercetin which orally administered conveys in
     vivo higher protection, longer maintenance of biol. activity, higher
```

concn. in tissues and higher biol. efficiency to vitamin C in organs in

human body. These compns. are useful as pharmaceutical compns. and as food supplements possessing preventive properties against damages of human organs, including skin, tissues and cells due to oxidative stress or ST ascorbate isoquercetin pharmaceutical IT Drug delivery systems (oral; ascorbate-isoquercetin compns.) IT Antioxidants (pharmaceutical; ascorbate-isoguercetin compns.) 7439-95-4D, Magnesium, salts ΙT 7439-89-6D, Iron, salts Potassium, salts 7440-70-2D, Calcium, salts RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ascorbate-isoquercetin compns.) IT 50-81-7, Ascorbic acid, biological studies 117-39-5D, Quercetin, derivs. 482-35-9, Isoquercetin 491-50-9 19254-30-9, Quercetin 3'-glucoside 20229-56-5, Quercetin 4'-glucoside RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ascorbate-isoquercetin compns.) RE.CNT RE (1) Eckes-Granini Gmbh & Co; DE 19820680 C 1999 (2) Ito, M; JP 07196523 A 1995 (3) Ito, M; JP 09030987 A 1997 (4) Kato, K; JP 06199690 A 1994 (5) Kato, K; JP 06199693 A 1994 (6) Noroozi, M; AMERICAN JOURNAL OF CLINICAL NUTRITION 1998, V67, P1210 HCAPLUS (7) San Ei Chem Ind Ltd; JP 04099771 A 1992 (8) Seto, T; CHEM PHARM BULL 1992, V40(8), P2080 HCAPLUS (9) Vrijsen, R; JOURNAL OF GENERAL VIROLOGY 1988, V69, P1749 HCAPLUS XXX (103/ L107 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2000 ACS 2000:133277 HCAPLUS NΑ DN 132:171127 Use of combinations of flavonoids and UV TΙ filters as antiviral agents Wolf, Florian; Traupe, Bernd; Untiedt, Sven; Staeb, Franz IN Beiersdorf Aktiengesellschaft, Germany PΑ SO Eur. Pat. Appl., 24 pp. CODEN: EPXXDW DT Patent German TιA TC ICM A61K007-42 ICS A61K007-48; A61K031-35; A61K031-125; A61K031-215; A61K031-53; A61K031-12; A61K031-19 63-6 (Pharmaceuticals) CC Section cross-reference(s): 62 FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE A2 20000223 EP 1999-115802 19990811 <--PΤ EP 980684 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO DE 1998-19837758 19980820 <--DE 19837758 A1 20000224 PRAI DE 1998-19837758 19980820 <--AB Cosmetic or dermatol. prepns. contg. a combination of flavonoids and **uv filter** substances ameliorate the course of viral infections, esp. shingles and herpes labialis. Thus, a lipstick contained iso-Pr lanolate 10.00, acetylated lanolin 4.00, bleached beeswax 9.00, carnauba wax 4.00, petrolatum 40.00, .alpha.-glucosylrutin 0.50, tocopheryl acetate 0.10, octyl methoxycinnamate 2.50, butylmethoxydibenzoylmethane 1.00, methylbenzylidenecamphor 1.00, TiO2 1.00, pigments and dyes, and paraffin oil to 100.00 wt.%. ST flavonoid UV filter virucide; sunscreen

flavonoid herpesvirus inhibition

```
TT
     Optical filters
        (UV; use of combinations of flavonoids and
      UV filters as antiviral agents)
IT
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (oxo dihydro; use of combinations of flavonoids and
     UV filters as antiviral agents)
IT
     Antiviral agents
     Human herpesvirus 1
     Human herpesvirus 3
     Sunscreens
        (use of combinations of flavonoids and UV
     filters as antiviral agents)
IT
     Flavones
     Flavonoids
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (use of combinations of flavonoids and UV
     filters as antiviral agents)
                         69-72-7D, Salicylic acid, esters 117-39-5,
IT
     60-81-1, Phlorizin
     Ouercetin
                 118-56-9, Homomenthyl salicylate
                                                   118-60-5, 2-Ethylhexyl
     salicylate 119-61-9D, Benzophenone, derivs. 120-46-7D,
     Dibenzoylmethane, derivs.
                                131-53-3, 2,2'-Dihydroxy-4-methoxybenzophenone
     131-57-7, 2-Hydroxy-4-methoxybenzophenone 150-13-0D,
     4-Aminobenzoic acid, derivs. 153-18-4, Rutin
                                                   290-87-9D,
     1,3,5-Triazine, derivs.
                               480-16-0, Morin 480-40-0, Chrysin
     489-35-0, Gossypetin 490-31-3, Robinetin 491-70-3, Luteolin
     520-18-3, Kaempferol
                            520-26-3, Hesperidin
                                                   520-27-4, Diosmin
     520-36-5, Apigenin
                         525-82-6, Flavone
                                              528-48-3, Fisetin
     529-44-2, Myricetin 548-83-4, Galangin
                                              577-85-5,
                584-45-2D, Benzalmalonic acid, esters 621-82-9D,
                             1641-17-4, 2-Hydroxy-4-methoxy-4'-
     Cinnamic acid, esters
     methylbenzophenone 5466-77-3, 2-Ethylhexyl 4-methoxycinnamate
     5997-53-5, 2-Phenylbenzimidazole-5-sulfonic acid sodium salt
     6197-30-4, 2-Ethylhexyl 2-cyano-3,3-diphenylacrylate
                               10236-47-2, Naringin
                                                      14779-78-3, Amyl
                  10020-01-6
     Troxerutin
     4-(dimethylamino)benzoate 15087-24-8, 3-Benzylidenecamphor
     15087-24-8D, 3-Benzylidenecamphor, derivs.
                                                 20702-77-6,
                                     21245-02-3, 2-Ethylhexyl
     Neohesperidin dihydrochalcone
                                                           27503-81-7,
     4-(dimethylamino)benzoate
                                23869-24-1, Monoxerutin
     2-Phenylbenzimidazole-5-sulfonic acid
                                             36861-47-9, 3-(4-
    Methylbenzylidene) camphor
                                 54472-82-1
                                              56039-58-8
                                                           63250-25-9
     70356-09-1 71617-10-2, Isopentyl 4-methoxycinnamate
                                                                         - false "hill
- See and orge 12
     94134-93-7, 4-Isopropylbenzyl salicylate
                                               130603-71-3,
                            158099-19-5
                                          186202-95-9 189183-15-1
     .alpha.-Glucosylrutin
                   221904-25-2 259143-65-2
     221904-13-8
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (use of combinations of flavonoids and UV
     filters as antiviral agents)
L107 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2000 ACS
     1999:576753 HCAPLUS
AN
DN
     131:219169
     Cosmetic or pharmaceutical formulations containing isoquercetin
TΙ
     with antiviral activity
     Buchholz, Herwig; Kraus, Christine; Wagner,
TN
     Annette; Meduski, Jerzy
PA
    Merck Patent G.m.bH., Germany
SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
DT
     Patent
     German
LA
     ICM A61K007-42
IC
```

ICS A61K031-35

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CC
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 62
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
     _____ ____
                           -----
                                          ______
                     A1 19990910
PI
    WO 9944578
                                         WO 1999-EP1104 19990220 <--
        W: CA, JP, US
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
     DE 19809304
                      A1
                           19990909
                                          DE 1998-19809304 19980305 <--
PRAI DE 1998-19809304 19980305 <--
     Solid or liq. formulations contain isoquercetin as a natural
AB
     flavonoid. The isoquercetin is contained as a light protection
     filter and/or an antiviral substance. The invention relates to
     both cosmetic and pharmaceutical formulations. Thus, a lipstick
     contained isoquercetin 0.1, Cremophor A-25 20.0, Cetiol HE 22.0, glycerin
     5.0, preservative q.s., and water to 100% by wt.
ST
     isoquercetin antiviral pharmaceutical cosmetic; sunscreen
     isoquercetin antiviral
     Optical filters
IT
        (UV; cosmetic or pharmaceutical formulations contg.
        isoguercetin with antiviral activity)
     Drug delivery systems
ΙT
        (capsules; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
TТ
     Antiviral agents
     Cosmetics
    Human herpesvirus
    Mouthwashes
     Propolis
     Sunscreens
        (cosmetic or pharmaceutical formulations contg. isoquercetin
        with antiviral activity)
     Carotenes, biological studies
ΙT
     Glycosides
    Vitamins
     RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (cosmetic or pharmaceutical formulations contg. isoquercetin
       with antiviral activity)
IT
     Cosmetics
        (creams; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (dragees; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Cosmetics
        (emulsions; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (gels; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
ΙT
     Drug delivery systems
        (inhalants; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IΤ
        (lipsticks; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (ligs.; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Cosmetics
     Drug delivery systems
        (lotions; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
```

```
(nasal sprays; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (ointments, creams; cosmetic or pharmaceutical formulations
        contg. isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (ointments; cosmetic or pharmaceutical formulations contq.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (solids; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
ΙT
     Drug delivery systems
        (sprays; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Cosmetics
        (sticks; cosmetic or pharmaceutical formulations contq.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (syrups; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
IT
     Drug delivery systems
        (tablets; cosmetic or pharmaceutical formulations contg.
        isoquercetin with antiviral activity)
     50-81-7, L-Ascorbic acid, biological studies 119-61-9,
IT
     Benzophenone, biological studies 621-82-9D, Cinnamic acid,
     esters 1314-13-2, Zinc oxide (ZnO), biological studies
     5466-77-3, Eusolex 2292 6197-30-4, Eusolex OCR
     13463-67-7, Titanium oxide, biological studies 15087-24-8
     , Eusolex 6900
                      18733-07-8, Eusolex 4360
                                                21245-02-3, Eusolex 6007
     71617-10-2, Isoamyl p-methoxycinnamate
                                             88122-99-0, Uvinul T 150
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (cosmetic or pharmaceutical formulations contq. isoquercetin
        with antiviral activity)
     117-39-5, Ouercetin 153-18-4, Rutin 154-23-4,
IT
     Catechin 480-19-3, Isorhamnetin 480-40-0, Chrysin
     480-44-4, Acacetin 482-35-9, Isoquercetin
     491-70-3, Luteolin 520-18-3, Kaempferol 520-33-2
     , Hesperitin 520-36-5, Apigenin 522-12-3, Quercitrin
     529-44-2, Myricetin 548-83-4, Galangin 552-58-9
     , Eriodictyol 15176-29-1, 5-Ethyldeoxyuridine
                                                      63250-25-9,
     Eusolex 8020
                    112725-59-4, Eusolex 9020
     RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (cosmetic or pharmaceutical formulations contg. isoquercetin
        with antiviral activity)
RE.CNT
       11
RE
(1) Anon; 1994, 7, HCAPLUS
(2) Anon; 1994, 7, HCAPLUS
(3) Anon; 1994, 21, HCAPLUS
(4) Bean, S; US 4132782 A 1979
(5) Kanebo; JP 60-208908 A 1985
(6) Merck; DE 19508608 A 1995
(7) Ruibosutei; JP 05-271088 A 1993
(8) Ruibosutei; JP 05-271090 A 1993
(9) Thorel, J; FR 2723316 A 1996
(10) WPI; AN 85300541
(11) Yunie, K; JP 06-199697 A 1994
L107 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2000 ACS
ΑN
     1999:393086 HCAPLUS
DN
     131:35660
     Use of flavones and flavonoids to stabilize dibenzoylmethanes against
ΤI
     UV-induced decomposition
IN
     Scheel, Oliver; Gers-Barlag, Heinrich
```

```
PΑ
     Beiersdorf A.-G., Germany
so
     Ger. Offen., 14 pp.
     CODEN: GWXXBX
DT
     Patent
     German
LA
TC
     ICM A61K007-44
CC
     62-4 (Essential Oils and Cosmetics)
FAN. CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
      /----
ΡI
     DE 19755504
                      A1
                            19990617
                                           DE 1997-19755504 19971213 <--
                                           US 1998-205435
     US 5952391
                       Α
                            19990914
                                                            19981204 <--
PRAI DE 1997-19755504
                      19971213 <--
     MARPAT 131:35660
OS
     Dibenzoylmethane-type UV filter compds. in sunscreen
AΒ
     formulations are stabilized against UV-induced Norrish
     type I deacylation by addn. of flavones or flavonoids.
                                                             Thus, a
     water-in-oil sunscreen lotion contained polyglyceryl-2 polyhydroxystearate
     3.50, polyglyceryl-3 diisostearate.3.50, butylene glycol 5.00, ceresin
     3.00, 45% NaOH 0.35, C12-15-alkyl benzoates 10.00, quercetin 2.00,
     4-tert-butyl-4'-methoxydibenzoylmethane 1.00, Eusolex 232 2.00, Miglyol
     812 6.00, Vaseline 2.00, preservative, perfume, and demineralized water to
     100.00 wt.%.
     sunscreen dibenzoylmethane uv stabilizer flavone; benzoylmethane
ST
     uv stabilizer flavonoid sunscreen \
TT
     Sunscreens
     uv stabilizers
        (use of flavones and flavonoids to stabilize dibenzoylmethanes against
      uv-induced decompn.)
IT
     Flavones
     Flavonoids
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (use of flavones and flavonoids to stabilize dibenzoylmethanes against
     uv-induced decompn.)
     117-39-5, Quercetin 120-46-7D, Dibenzoylmethane, derivs.
ΙT
     153-18-4, Rutin 480-18-2, Taxifolin 482-35-9,
                   489-35-0, Gossypetin 490-31-3, Robinetin 491-70-3
     Isoquercetin
                  528-48-3, Fisetin 529-44-2, Myricetin 4382-33-6,
     , Luteolin
                       7085-55-4, Troxerutin
                                                23869-24-1, Monoxerutin
     Dihydrorobinetin
     38965-51-4, Eriodictyol 7-glucoside 63250-25-9, 4-
     Isopropyldibenzoylmethane
                                 70356-09-1, 4-(tert-Butyl)-4'-
     methoxydibenzoylmethane
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (use of flavones and flavonoids to stabilize dibenzoylmethanes against
      uv-induced decompn.)
RE.CNT 1
RF.
(1) Anon; DE 4227806 A1 HCAPLUS
=> sel hit rn 1107
E1 THROUGH E29 ASSIGNED
=> fil reg
FILE 'REGISTRY' ENTERED AT 10:45:36 ON 03 JUL 2000
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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COPYRIGHT (C) 2000 American Chemical Society (ACS)
STRUCTURE FILE UPDATES:
                           2 JUL 2000 HIGHEST RN 274249-26-2
DICTIONARY FILE UPDATES:
                           2 JUL 2000 HIGHEST RN 274249-26-2
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 11, 2000
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Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> d ide can tot

L109 ANSWER 1 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **259143-65-2** REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-glucofuranosyloxy)-5,7-dihydroxy-, mono-.alpha.-D-glucopyranoside (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C27 H30 O17

CI IDS

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

CM 1

CRN 21637-25-2 CMF C21 H20 O12

Absolute stereochemistry.

CM 2

CRN 492-62-6 CMF C6 H12 O6

Absolute stereochemistry. Rotation (+).

Liet anyl from rep 1-7, 2104

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1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)
```

REFERENCE 1: 132:171127

L109 ANSWER 2 OF 29 REGISTRY COPYRIGHT 2000 ACS 71617-10-2 REGISTRY RN CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 3-methylbutyl ester (9CI) INDEX NAME) OTHER NAMES: 4-Methoxycinnamic acid isoamyl ester CN Isoamyl 4-methoxycinnamate CN

Isoamyl p-methoxycinnamate CN Isopentyl 4-methoxycinnamate CN

Neo Heliopan 1000 CN Neo Heliopan E 1000 CN

3D CONCORD FS C15 H20 O3 MF

BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB, LCSTN Files: CHEMLIST, CIN, CSCHEM, EMBASE, IPA, MEDLINE, NIOSHTIC, PROMT, RTECS*, TOXLINE, TOXLIT, USPATFULL

(*File contains numerically searchable property data) DSL**, EINECS** Other Sources:

(**Enter CHEMLIST File for up-to-date regulatory information)

$$CH = CH - C - O - CH_2 - CH_2 - CHMe_2$$

132:313327

42 REFERENCES IN FILE CA (1967 TO DATE) 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 42 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1: 133:8879 REFERENCE 2:

REFERENCE

132:185251 REFERENCE 3:

132:171127 REFERENCE 4:

REFERENCE 5: 132:15491

131:341791 REFERENCE 6:

REFERENCE 7: 131:314089

131:307843 REFERENCE 8:

131:276799 REFERENCE 9:

REFERENCE 10: 131:219169

L109 ANSWER 3 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 15176-29-1 REGISTRY

Uridine, 2'-deoxy-5-ethyl- (8CI, 9CI) (CA INDEX NAME) CN

OTHER NAMES:

CN .beta.-5-Ethyl-2'-deoxyuridine

CN .beta.-5-Ethyldeoxyuridine

CN 2'-Deoxy-5-ethyluridine

5-Ethyl-1-(2'-deoxy-.beta.-D-ribofuranosyl)uracil CN

```
5-Ethyl-2'-deoxyuridine
CN
     5-Ethyldeoxyuridine
CN
     Aedurid
CN
     Edoxudine
CN
CN
     EDU
CN
     Epoxudine
     STEREOSEARCH
FS
     46895-01-6
DR
     C11 H16 N2 O5
MF
CI
                  ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
LC
     STN Files:
       CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU,
       DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT,
       PHAR, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
                     EINECS**, WHO
         (**Enter CHEMLIST File for up-to-date regulatory information)
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16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             247 REFERENCES IN FILE CAPLUS (1967 TO DATE)
REFERENCE
            1: 132:202665
            2:
               132:102168
REFERENCE
REFERENCE
            3:
               132:20176
REFERENCE
            4:
                132:199
REFERENCE
            5:
               131:281141
REFERENCE
            6:
                131:219169
               131:170572
REFERENCE
            7:
REFERENCE
            8:
                131:55871
REFERENCE
            9:
                130:332275
REFERENCE 10: 130:308444
L109 ANSWER 4 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     15087-24-8 REGISTRY
     Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-3-(phenylmethylene)- (9CI)
CN
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
     2-Bornanone, 3-benzylidene- (8CI)
OTHER NAMES:
```

247 REFERENCES IN FILE CA (1967 TO DATE)

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sharareh - 09 / 349713
     3-Benzylidenebornan-2-one
CN
     3-Benzylidenecamphor
CN
CN
     Benzylidenecamphor
CN
     Eusolex 6900
CN
     Ultracyd
CN
     Ultren BK
DR
     36065-10-8
     C17 H20 O
MF
     COM
CI
LC
     STN Files:
                  BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,
       SPECINFO, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
                     DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
   Me
     ∠ CH— Ph
       Me
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 Me
              81 REFERENCES IN FILE CA (1967 TO DATE)
              26 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              81 REFERENCES IN FILE CAPLUS (1967 TO DATE)
REFERENCE
            1: 132:227166
REFERENCE
            2:
               132:212523
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            3:
               132:171127
REFERENCE
               132:170875
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               132:156549
REFERENCE
            6:
               132:141697
REFERENCE
            7:
               132:127474
REFERENCE
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REFERENCE
            9:
                131:276808
REFERENCE
          10:
                131:276799
L109 ANSWER 5 OF 29 REGISTRY COPYRIGHT 2000 ACS
     13463-67-7 REGISTRY
     Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN
     1385RN59
CN
     500HD
CN
     63B1 White
CN
     A 100
CN
     A 200
CN
     A 200 (pigment)
```

CN

CN

CN

CN

CN

CN

A-Fil Cream

Aerosil P 25

Aerosil P 27

Aerosil T 805

Aerosil P 25S6

A-FN 3

```
CN
    AF-E 3D
CN
    AK 15
CN
    AK 15 (pigment)
CN
    Amperit 780.0
CN
    AMT 100
CN
    AMT 600
CN
    Austiox R-CR 3
    B 101
CN
    B 101 (pigment)
CN
    Bayer R-FD 1
CN
CN
    Bayertitan A
CN
    Bayertitan AN 3
    Bayertitan R-FD 1
CN
    Bayertitan R-FK 21
CN
    Bayertitan R-FK-D
CN
    Bayertitan R-KB 2
CN
CN
    Bayertitan R-KB 4
CN
    Bayertitan R-KB 5
CN
    Bayertitan R-U 2
    Bayertitan R-U-F
CN
    Bayertitan R-V-SE 20
CN
    Bayertitan T
CN
CN
    BR 29-7-2
    C.I. 77891
CN
    C.I. Pigment White 6
CN
    Cab-O-Ti
CN
CN
    CG-T
CN
    CL 310
    CR 50
CN
CN
    CR 58
    CR 60
CN
CN
    CR 60-2
CN
    CR 63
    CR 63 (pigment)
CN
    CR 80
CN
CN
    CR 800PG
CN
    CR 90
    CR 93
CN
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     DISPLAY
AR
     51745-87-0
DR
     12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1309-63-3, 1344-29-2,
     55068-84-3, 55068-85-4, 62338-64-1, 101239-53-6, 98084-96-9, 37230-92-5,
     37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7,
     116788-85-3, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1,
     195740-11-5, 224963-00-2
    02 Ti
MF
CI
     COM
                  AGRICOLA, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2,
LC
     STN Files:
       BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT,
       CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM,
       CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT,
       IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT,
       RTECS*, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VTB
         (*File contains numerically searchable property data)
                     DSL**, EINECS**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
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o= Ti= 0

84350 REFERENCES IN FILE CA (1967 TO DATE) 1216 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 84476 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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REFERENCE
            1:
                133:26268
REFERENCE
            2:
                133:26018
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            3:
                133:25976
REFERENCE
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                133:25970
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            5:
                133:25829
REFERENCE
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                133:25493
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                133:25423
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            9:
                133:24978
REFERENCE
REFERENCE 10:
                133:24976
L109 ANSWER 6 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     6197-30-4 REGISTRY
     2-Propenoic acid, 2-cyano-3,3-diphenyl-, 2-ethylhexyl ester (9CI)
                                                                         (CA
CN
     INDEX NAME)
OTHER CA INDEX NAMES:
     Acrylic acid, 2-cyano-3,3-diphenyl-, 2-ethylhexyl ester (7CI, 8CI)
CN
OTHER NAMES:
     2'-Ethylhexyl 2-cyano-3-phenylcinnamate
CN
     2-Ethylhexyl .alpha.-cyano-.beta.,.beta.'-diphenylacrylate
CN
     2-Ethylhexyl .alpha.-cyano-.beta.-phenylcinnamate
CN
     2-Ethylhexyl 2-cyano-3,3-diphenyl-2-propenoate
CN
     2-Ethylhexyl 2-cyano-3,3-diphenylacrylate
CN
     Agent AT 539
CN
     Eusolex OCR
CN
CN
     Octocrilene
CN
     Octocrylene
     Sanduvor 3039
CN
     Uvinul 3039
CN
     Uvinul N 539
CN
     Viosorb 930
CN
FS
     3D CONCORD
     80135-31-5, 149984-83-8
DR
     C24 H27 N O2
MF
CI
     STN Files:
                  BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,
LC
       CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,
       MEDLINE, MSDS-OHS, PROMT, TOXLINE, TOXLIT, USAN, USPATFULL
                     DSL**, EINECS**, TSCA**, WHO
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
             CPh<sub>2</sub>
   CH2-O-C-CN
Et-CH-Bu-n
```

282 REFERENCES IN FILE CA (1967 TO DATE)
283 REFERENCES IN FILE CAPLUS (1967 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:18503

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REFERENCE
            2: 133:10845
               132:348690
REFERENCE
            3:
               132:339066
REFERENCE
            4:
REFERENCE
            5:
               132:339056
               132:269842
REFERENCE
            6:
            7:
               132:266544
REFERENCE
               132:229304
REFERENCE
            8:
            9:
               132:214848
REFERENCE
REFERENCE 10: 132:211569
L109 ANSWER 7 OF 29 REGISTRY COPYRIGHT 2000 ACS
     5466-77-3 REGISTRY
RN
     2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester (9CI) (CA
CN
     INDEX NAME)
OTHER NAMES:
     2-Ethylhexyl 4-methoxycinnamate
CN
CN
     2-Ethylhexyl p-methoxycinnamate
CN
     Escalol 557
     Ethylhexyl p-methoxycinnamate
CN
CN
     Eusolex 2292
CN
     Neo Heliopan AV
CN
     Octyl 4-methoxycinnamate
CN
     Octyl p-methoxycinnamate
     p-Methoxycinnamic acid 2-ethylhexyl ester
CN
     Parsol MCX
CN
CN
     Parsol MCX-SA
     Sunscreen AV
CN
     Uvinul 3088
CN
     3D CONCORD
FS
     155867-04-2
DR
     C18 H26 O3
MF
CI
     COM
                  ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
LC
     STN Files:
       CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU,
       DRUGU, EMBASE, IFICDB, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, PROMT,
       SPECINFO, TOXLINE, TOXLIT, ULIDAT, USPATFULL
         (*File contains numerically searchable property data)
                      DSL**, EINECS**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

635 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
639 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:22170

REFERENCE 2: 133:22138

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REFERENCE
            3: 133:22137
            4: 133:8879
REFERENCE
REFERENCE
            5: 132:352526
            6: 132:349681
REFERENCE
            7: 132:339084
REFERENCE
REFERENCE
            8: 132:339056
REFERENCE
            9: 132:313315
REFERENCE 10: 132:283927
L109 ANSWER 8 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     1314-13-2 REGISTRY
     Zinc oxide (ZnO) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
     23K
CN
CN
     23K (metal oxide)
CN
     503R
     Actox 14
CN
     Actox 16
CN
     Actox 216
CN
     AEE-Zn 601
CN
CN
     Amalox
    AZ-SW
CN
    AZO
CN
    AZO 22
CN
    AZO 55
CN
     AZO 66
CN
     AZO 77
CN
     Azo-B
CN
     Azodox
CN
     Biocide 3000D
CN
CN
     BTs 1
CN
     BTs 1 (pigment)
     C 30
CN
     C 30 (oxide)
CN
     Conductive Zinc Oxide No. 1
CN
     Electrox 2500
CN
CN
     Elma 21
     Elma 215
CN
     F 60
CN
     F 60 (antimicrobial)
CN
     FC-MI-W
CN
     Finex 25
CN
     Finex 50
CN
     Finex 75
CN
     FINX 75
CN
     Flowers of zinc
CN
     FO 1020A
CN
CN
     FΧ
CN
     FX (oxide)
     FX-UFZ-D
CN
     GIAP 10
CN
     Green Seal 8
CN
     Hubbuck's White
CN
     K-Fresh MZO
CN
     Kadox 15
CN
     Kadox 25
CN
     Kadox 515
CN
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Kadox 72

CN

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CN
     Kadox 911
CN
     Kadox 920
     Kadox 930
CN
     Kadox XX 78
CN
CN
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     8011-84-5, 8047-36-7, 8047-69-6, 8050-42-8, 8051-03-4, 56592-00-8,
DR
     57206-86-7, 185461-95-4
MF
     O Zn
CI
     COM
                  AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT,
LC
     STN Files:
       APIPAT2, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD,
       CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE,
       CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, HSDB*, IFICDB,
       IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA,
       PROMT, RTECS*, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VETU,
         (*File contains numerically searchable property data)
                      DSL**, EINECS**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
0=== Zn
           48183 REFERENCES IN FILE CA (1967 TO DATE)
             604 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           48241 REFERENCES IN FILE CAPLUS (1967 TO DATE)
               2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
            1: 133:26195
REFERENCE
               133:25367
REFERENCE
REFERENCE
               133:25366
REFERENCE
            4:
               133:24844
REFERENCE
            5:
               133:24769
REFERENCE
               133:24732
REFERENCE
            7: 133:23780
               133:23634
REFERENCE
            8:
            9:
               133:22944
REFERENCE
REFERENCE 10: 133:22460
L109 ANSWER 9 OF 29 REGISTRY COPYRIGHT 2000 ACS
     621-82-9 REGISTRY
     2-Propenoic acid, 3-phenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Cinnamic acid (7CI, 8CI)
OTHER NAMES:
     .beta.-Phenylacrylic acid
CN
     3-Phenyl-2-propenoic acid
CN
CN
     3-Phenylacrylic acid
     Phenylacrylic acid
CN
     3D CONCORD
FS
     C9 H8 O2
MF
CI
LC
     STN Files:
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
```

BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,

```
CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE,
       GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT,
       NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT,
       TULSA, USPATFULL, VTB
         (*File contains numerically searchable property data)
     Other Sources:
                     DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
Ph-CH=CH-CO2H
            3441 REFERENCES IN FILE CA (1967 TO DATE)
             489 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            3443 REFERENCES IN FILE CAPLUS (1967 TO DATE)
REFERENCE
            1: 133:17342
REFERENCE
            2: 133:16620
REFERENCE
            3:
               133:16480
REFERENCE
            4:
               133:9382
REFERENCE
            5:
               133:8887
REFERENCE
            6:
               133:8880
REFERENCE
            7:
               133:8879
REFERENCE
            8:
               133:6902
REFERENCE
            9:
               133:2150
REFERENCE 10: 132:352846
L109 ANSWER 10 OF 29 REGISTRY COPYRIGHT 2000 ACS
     552-58-9 REGISTRY
     4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-,
                 (CA INDEX NAME)
     (2S) - (9CI)
OTHER CA INDEX NAMES:
     4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-,
     (S) -
    Eriodictyol (6CI)
    Flavanone, 3',4',5,7-tetrahydroxy- (7CI, 8CI)
OTHER NAMES:
    (2S)-Eriodictyol
    (S)-3',4',5,7-Tetrahydroxyflavanone
    Huazhongilexone
    STEREOSEARCH
    17654-24-9, 216973-79-4
    C15 H12 O6
     COM
     STN Files:
                  AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
       CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU,
       EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT,
       PIRA, SPECINFO, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
                      EINECS**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
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RN

CN

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CN

CN CN

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DR MF

CI

LC

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OH
                             OH
HO
       OH
             0
             341 REFERENCES IN FILE CA (1967 TO DATE)
               3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             341 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              16 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
            1: 132:346807
REFERENCE
               132:345506
REFERENCE
            2:
               132:305582
REFERENCE
REFERENCE
            4:
               132:250515
REFERENCE
            5:
               132:191743
REFERENCE
            6:
               132:165795
REFERENCE
            7:
               132:147916
REFERENCE
            8:
               132:121607
               131:355899
REFERENCE
            9:
REFERENCE 10: 131:298969
L109 ANSWER 11 OF 29 REGISTRY COPYRIGHT 2000 ACS
     548-83-4 REGISTRY
     4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)
CN
OTHER CA INDEX NAMES:
     Flavone, 3,5,7-trihydroxy- (7CI, 8CI)
CN
     Galangin (6CI)
CN
OTHER NAMES:
     3,5,7-Trihydroxyflavone
CN
     Norizalpinin
CN
FS
     3D CONCORD
     50306-94-0
DR
MF
     C15 H10 O5
CI
     COM
LC
     STN Files:
                 AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
       CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU,
       EMBASE, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA,
       RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
                      EINECS**
     Other Sources:
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(**Enter CHEMLIST File for up-to-date regulatory information)

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Ph
HO
                OH
      OH
           0
             457 REFERENCES IN FILE CA (1967 TO DATE)
               2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             458 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
            1: 133:1933
REFERENCE
REFERENCE
            2:
                132:352593
REFERENCE
            3:
                132:332033
REFERENCE
            4:
                132:317449
                132:248191
REFERENCE
            5:
                132:234409
REFERENCE
            6:
REFERENCE
            7:
                132:202616
REFERENCE
            8:
                132:171127
REFERENCE
            9:
                132:133714
REFERENCE 10:
                132:92414
L109 ANSWER 12 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     529-44-2 REGISTRY
     4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI)
CN
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Flavone, 3,3',4',5,5',7-hexahydroxy- (8CI)
CN
OTHER NAMES:
     3,3',4',5,5',7-Hexahydroxyflavone
CN
     3,5,7,3',4',5'-Hexahydroxyflavone
CN
     Cannabiscetin
CN
CN
     Myricetin
CN
     Myricetol
FS
     3D CONCORD
MF
     C15 H10 O8
CI
     COM
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM,
       DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PHAR,
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PROMT, RTECS*, TOXLINE, TOXLIT, ULIDAT, USPATFULL

EINECS**

(*File contains numerically searchable property data)

(**Enter CHEMLIST File for up-to-date regulatory information)

Other Sources:

1020 REFERENCES IN FILE CA (1967 TO DATE)

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55 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            1023 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1: 133:16661
REFERENCE
            2: 133:16650
REFERENCE
            3:
              133:4163
REFERENCE
            4: 133:3933
REFERENCE
            5: 133:3828
            6:
               133:1933
REFERENCE
            7: 132:352828
REFERENCE
            8: 132:346975
REFERENCE
            9: 132:346807
REFERENCE
REFERENCE 10: 132:332033
L109 ANSWER 13 OF 29 REGISTRY COPYRIGHT 2000 ACS
     522-12-3 REGISTRY
RN
     4H-1-Benzopyran-4-one, 3-[(6-deoxy-.alpha.-L-mannopyranosyl)oxy]-2-(3,4-
CN
     dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Quercitrin (7CI, 8CI)
CN
OTHER NAMES:
     3,3',4',5,7-Pentahydroxyflavone 3-L-rhamnoside
CN
CN
     3-O-Rhamnosylquercetin
     5,7,3',4'-Tetrahydroxyflavonol 3-O-rhamnoside
CN
     C.I. 75720
CN
     Quercetin 3-L-rhamnoside
CN
     Quercetin 3-0-.alpha.-L-rhamnopyranoside
CN
     Quercetin 3-0-.alpha.-L-rhamnoside
CN
     Quercetin 3-0-L-rhamnoside
CN
     Quercetin 3-0-rhamnopyranoside
CN
     Quercetin 3-0-rhamnoside
CN
     Quercetin 3-rhamnopyranoside
CN
     Quercetin 3-rhamnoside
CN
CN
     Quercimelin
CN
     Quercitroside
     STEREOSEARCH
FS
     158800-81-8, 64626-60-4, 29660-86-4, 52828-35-0, 52882-53-8
DR
MF
     C21 H20 O11
     COM
CI
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,
       CHEMLIST, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, HODOC*, HSDB*, IPA,
       MEDLINE, MRCK*, NAPRALERT, PIRA, RTECS*, SPECINFO, TOXLINE, TOXLIT,
       USPATFULL
         (*File contains numerically searchable property data)
     Other Sources: EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

Absolute stereochemistry.

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ОН
                          OH
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HO
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                         s
                           R
       OH
             0
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            1241 REFERENCES IN FILE CA (1967 TO DATE)
              10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            1242 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              25 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1:
                133:16650
REFERENCE
            2:
                133:14602
                133:4163
REFERENCE
            3:
                133:3828
REFERENCE
            4:
                132:345475
REFERENCE
            5:
REFERENCE
            6:
                132:321070
                132:305044
REFERENCE
            7:
                132:292854
REFERENCE
            8:
REFERENCE
            9:
                132:291061
                132:278327
REFERENCE
          10:
L109 ANSWER 14 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     520-36-5 REGISTRY
     4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX
CN
     NAME)
OTHER CA INDEX NAMES:
     Flavone, 4',5,7-trihydroxy- (8CI)
OTHER NAMES:
CN
     4',5,7-Trihydroxyflavone
CN
     5,7,4'-Trihydroxyflavone
CN
     Apigenin
CN
     Apigenine
CN
     Apigenol
CN
     C.I. Natural Yellow 1
CN
     Chamomile
CN
     LY 080400
FS
     3D CONCORD
MF
     C15 H10 O5
CI
     COM
                  ADISINSIGHT, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS,
LC
     STN Files:
       BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IPA,
       MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*,
       SPECINFO, TOXLINE, TOXLIT, USPATFULL
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(*File contains numerically searchable property data)

(**Enter CHEMLIST File for up-to-date regulatory information)

EINECS**

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OH
           0
            2014 REFERENCES IN FILE CA (1967 TO DATE)
             163 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            2016 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1:
               133:14645
REFERENCE
            2:
                133:4163
REFERENCE
                133:3933
            3:
REFERENCE
            4:
                133:1933
                132:345506
REFERENCE
            5:
                132:345474
REFERENCE
            6:
            7:
                132:345473
REFERENCE
REFERENCE
            8:
                132:332075
            9:
                132:332074
REFERENCE
REFERENCE 10:
                132:332059
L109 ANSWER 15 OF 29 REGISTRY COPYRIGHT 2000 ACS
     520-33-2 REGISTRY
RN
     4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(3-hydroxy-4-
CN
     methoxyphenyl)-, (2S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-(3-hydroxy-4-
CN
    methoxyphenyl)-, (S)-
Flavanone, 3',5,7-trihydroxy-4'-methoxy- (8CI)
CN '
     Hesperetin (6CI)
CN
OTHER NAMES:
     3',5,7-Trihydroxy-4'-methoxyflavanone
CN
     5,7,3'-Trihydroxy-4'-methoxyflavanone
CN
     Eriodictyol 4'-monomethyl ether
CN
CN
     Hesperitin
     STEREOSEARCH
FS
     25465-97-8, 17654-25-0, 53077-91-1
DR
MF
     C16 H14 O6
CI
     COM
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC.
     STN Files:
       BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
       CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB,
       IPA, MEDLINE, MRCK*, NAPRALERT, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
                       EINECS**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
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                    S
         OH
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STN Files:

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476 REFERENCES IN FILE CA (1967 TO DATE)
                9 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             476 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1:
                133:14640
REFERENCE
            2:
                133:4163
REFERENCE
            3:
                132:345506
REFERENCE
            4:
                132:319455
                132:317992
REFERENCE
            5:
                132:308151
REFERENCE
            6:
REFERENCE
            7:
                132:305044
REFERENCE
            8:
                132:261521
REFERENCE
            9:
                132:234345
REFERENCE 10:
                132:227427
L109 ANSWER 16 OF 29 REGISTRY COPYRIGHT 2000 ACS
     520-18-3 REGISTRY
RN
     4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-(4-hydroxyphenyl)- (9CI)
CN
     INDEX NAME)
OTHER CA INDEX NAMES:
     Flavone, 3,4',5,7-tetrahydroxy- (7CI, 8CI)
CN
OTHER NAMES:
CN
     3,4',5,7-Tetrahydroxyflavone
     5,7,4'-Trihydroxyflavonol
CN
     C.I. 75640
CN
     Indigo Yellow
CN
     Kaempferol
CN
     Kaempherol
CN
CN
     Kampcetin
     Kempferol
CN
     Nimbecetin
CN
     Pelargidenolon
CN
CN
     Populnetin
CN
     Rhamnolutein
CN
     Rhamnolutin
CN
     Robigenin
CN
     Swartziol
CN
     Trifolitin
FS
     3D CONCORD
     14461-95-1
DR
MF
     C15 H10 O6
CI
     COM
                   AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
```

BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,

CHEMLIST, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, HODOC*, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

2670 REFERENCES IN FILE CA (1967 TO DATE)

254 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2674 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
REFERENCE 1: 133:22239
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REFERENCE 2: 133:16650

REFERENCE 3: 133:4163

REFERENCE 4: 133:3933

REFERENCE 5: 133:3828

REFERENCE 6: 133:2528

REFERENCE 7: 132:352867

REFERENCE 8: 132:352594

REFERENCE 9: 132:346975

REFERENCE 10: 132:345506

L109 ANSWER 17 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN **491-70-3** REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3', 4', 5, 7-tetrahydroxy- (8CI)

CN Luteolin (6CI)

OTHER NAMES:

CN 3', 4', 5, 7-Tetrahydroxyflavone

CN 5,7,3',4'-Tetrahydroxyflavone

CN Cyanidenon 1470

CN Digitoflavone

CN Flacitran

CN Luteoline

CN Luteolol

CN Weld lake

CN Yama Kariyasu

FS 3D CONCORD

DR 12671-63-5

MF C15 H10 O6

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IPA, MEDLINE, MRCK*, NAPRALERT,
PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL, VETU

(*File contains numerically searchable property data)
Other Sources: EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)

```
OH
      OH
           0
                  OH
            1877 REFERENCES IN FILE CA (1967 TO DATE)
             143 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            1880 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              52 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1: 133:14605
            2:
                133:12549
REFERENCE
                133:4163
REFERENCE
            3:
                133:3933
REFERENCE
            4:
REFERENCE
            5:
                132:346975
            6:
                132:345506
REFERENCE
                132:345474
REFERENCE
            7 -
                132:332059
REFERENCE
            8:
                132:332050
            9:
REFERENCE
                132:325907
REFERENCE 10:
L109 ANSWER 18 OF 29 REGISTRY COPYRIGHT 2000 ACS
     482-36-0 REGISTRY
RN
     4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-
CN
     galactopyranosyloxy)-5,7-dihydroxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN
     Hyperin (7CI, 8CI)
OTHER NAMES:
     3,3',4',5,7-Pentahydroxyflavone 3-0-.beta.-D-galactopyranoside
CN
     3-O-.beta.-D-galactopyranosylquercetin
CN
CN
     Hyperosid
CN
     Hyperoside
CN
     Quercetin 3-.beta.-D-galactoside
CN
     Quercetin 3-.beta.-galactoside
     Quercetin 3-0-.beta.-D-galactopyranoside
CN
     Quercetin 3-0-.beta.-D-galactoside
CN
FS
     STEREOSEARCH
     158560-10-2, 56552-81-9, 63003-36-1, 61277-37-0, 112457-37-1, 71184-39-9,
DR
     26857-03-4, 28986-85-8, 29224-70-2
     C21 H20 O12
MF
CI
     COM
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMINFORMRX,
       CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, PROMT,
```

RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

EINECS**

Other Sources:

(*File contains numerically searchable property data)

(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.

Glucosyl-3-quercetin

Quercetin 3-.beta.-D-glucopyranoside

Isoquercetin

Q 5

CN CN

CN

CN

```
1134 REFERENCES IN FILE CA (1967 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1135 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
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1: 133:14645 REFERENCE 2: 133:14602 REFERENCE 133:14589 REFERENCE 3: REFERENCE 4: 133:14585 133:3828 REFERENCE 5: 6: 132:345481 REFERENCE REFERENCE 7: 132:343347 132:332064 REFERENCE 8: 132:326078 9: REFERENCE REFERENCE 10: 132:319752 L109 ANSWER 19 OF 29 REGISTRY COPYRIGHT 2000 ACS 482-35-9 REGISTRY RN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-CN glucopyranosyloxy)-5,7-dihydroxy- (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: Hirsutrin (8CI) CN OTHER NAMES: 3-Glucosylquercetin CN 3-O-.beta.-D-Glucopyranosylquercetin CN CN Contigoside B

```
Quercetin 3-.beta.-D-glucoside
CN
     Quercetin 3-.beta.-glucoside
CN
CN
     Quercetin 3-D-glucoside
     Quercetin 3-glucoside
CN
     Quercetin 3-mono-D-glucoside
CN
     Quercetin 3-monoglucoside
CN
     Quercetin 3-0-.beta.-D-glucopyranoside
CN
CN
     Quercetin 3-0-.beta.-D-glucoside
CN
     Quercetin 3-0-.beta.-glucoside
CN
     Quercetin 3-0-glucopyranoside
     Quercetin 3-0-glucoside
CN
     Quercetin 3.beta.-glucoside
CN
     Quercetin 3.beta.-O-glucoside
CN
CN
     Quercetol 3-glucoside
     Quercetol 3-monoglucoside
CN
FS
     STEREOSEARCH
     133946 - 90 - 4, \ 61277 - 38 - 1, \ 27215 - 07 - 2, \ 28454 - 82 - 2, \ 107438 - 55 - 1
DR
MF
     C21 H20 O12
CI
     COM
                   AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, CSCHEM, DDFU,
       DRUGU, EMBASE, IPA, NAPRALERT, RTECS*, TOXLINE, TOXLIT, USPATFULL
          (*File contains numerically searchable property data)
```

1049 REFERENCES IN FILE CA (1967 TO DATE)
18 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1051 REFERENCES IN FILE CAPLUS (1967 TO DATE)
18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:16661 REFERENCE 2: 133:14598 REFERENCE 3: 133:14585 REFERENCE 4: 133:3828 REFERENCE 5: 133:264 REFERENCE 6: 132:352791

REFERENCE 6: 132:332/91

REFERENCE 7: 132:345472

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REFERENCE
            8:
                132:343347
REFERENCE
            9:
                132:332011
REFERENCE 10:
                132:326078
L109 ANSWER 20 OF 29 REGISTRY COPYRIGHT 2000 ACS
     480-44-4 REGISTRY
RN
     4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-(4-methoxyphenyl)- (9CI)
                                                                       (CA INDEX
CN
     NAME)
OTHER CA INDEX NAMES:
     Acacetin (6CI)
CN
     Flavone, 5,7-dihydroxy-4'-methoxy- (7CI, 8CI)
CN
OTHER NAMES:
CN
     4'-Methylapigenin
CN
     4'-O-Methylapigenin
CN
     5,7-Dihydroxy-4'-methoxyflavone
CN
     Apigenin 4'-methyl ether
CN
     Buddleoflavonol
CN
     Linarigenin
CN
     LY 064233
FS
     3D CONCORD
     C16 H12 O5
MF
CI
                  AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
LC
     STN Files:
       CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST,
       CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IPA, MEDLINE, MRCK*, NAPRALERT,
       PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

452 REFERENCES IN FILE CA (1967 TO DATE)
13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
454 REFERENCES IN FILE CAPLUS (1967 TO DATE)
31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:4163 132:305044 REFERENCE 2: 132:291064 REFERENCE 3: REFERENCE 4: 132:278288 132:219573 REFERENCE 5: REFERENCE 6: 132:219571 REFERENCE 7: 132:175757 132:90705 REFERENCE 8:

9:

132:78747

REFERENCE

REFERENCE 10: 132:75514

L109 ANSWER 21 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 480-40-0 REGISTRY

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Chrysin (6CI)

CN Flavone, 5,7-dihydroxy- (7CI, 8CI)

OTHER NAMES:

CN 5,7-Dihydroxyflavone

FS 3D CONCORD

MF C15 H10 O4

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,
CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, HODOC*,
IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, PROMT,
RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

752 REFERENCES IN FILE CA (1967 TO DATE)

7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

753 REFERENCES IN FILE CAPLUS (1967 TO DATE)

42 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:17358

REFERENCE 2: 133:17274

REFERENCE 3: 133:4533

REFERENCE 4: 133:1933

REFERENCE 5: 132:352593

REFERENCE 6: 132:346975

REFERENCE 7: 132:319443

REFERENCE 8: 132:317449

REFERENCE 9: 132:308835

REFERENCE 10: 132:308151

L109 ANSWER 22 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 480-19-3 REGISTRY

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-(4-hydroxy-3-methoxyphenyl)(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavone, 3,4',5,7-tetrahydroxy-3'-methoxy- (8CI)

CN Isorhamnetin (6CI)

OTHER NAMES:

CN 3'-Methoxyquercetin

CN 3'-Methylquercetin

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sharareh - 09 / 349713
CN
     3'-O-Methylquercetin
CN
     3,4',5,7-Tetrahydroxy-3'-methoxyflavone
CN
     C.I. 75680
     Isorhamnetol
CN
CN
     Quercetin 3'-methyl ether
FS
     3D CONCORD
MF
     C16 H12 O7
CI
     COM
     STN Files:
LC
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CIN,
       CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, PIRA, RTECS*,
       SPECINFO, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
                       OH
             OH
      OH
          0
                  OMe
             719 REFERENCES IN FILE CA (1967 TO DATE)
              70 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             720 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              41 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1: 133:22239
REFERENCE
                132:352791
            2:
REFERENCE
            3:
                132:326032
REFERENCE
                132:319455
            4:
                132:305044
REFERENCE
            5:
REFERENCE
            6:
                132:291061
REFERENCE
            7:
                132:278593
REFERENCE
            8:
                132:278312
REFERENCE
            9:
                132:262613
REFERENCE 10:
                132:261521
L109 ANSWER 23 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     154-23-4 REGISTRY
```

CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-, (2R, 3S) - (9CI)(CA INDEX NAME) OTHER CA INDEX NAMES: 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-, CN (2R-trans)-CN Catechol (8CI) OTHER NAMES: (+) - (2R:3S) -5, 7, 3', 4'-Tetrahydroxyflavan-3-ol CN (+) -3', 4', 5, 7-Tetrahydroxy-2, 3-trans-flavan-3-ol CN CN (+)-Catechin CN (+)-Catechol (+)-Cianidanol CN

```
(+)-Cyanidan-3-ol
CN
     (+)-Cyanidanol
CN
     (+)-Cyanidanol-3
CN
CN
     3-Cyanidanol, (+)-
CN
     Biocatechin
CN
     Catechin
CN
     Catechin (flavan)
CN
     Catechinic acid
     Catechol (flavan)
CN
     Catechuic acid
CN
CN
     Catergen
CN
     Cianidanol
CN
     Cyanidanol
CN
     D-(+)-Catechin
     D-Catechin
CN
CN
     d-Catechin
CN
     D-Catechol
     trans-(+)-3,3',4',5,7-Flavanpentol
CN
     STEREOSEARCH
FS
     321-01-7, 16198-00-8, 4211-28-3, 5323-80-8, 159761-73-6
DR
MF
     C15 H14 O6
CI
     COM
LC
     STN Files:
                  AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
       CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE,
       IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC,
       PDLCOM*, PHAR, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN,
       USPATFULL, VETU
         (*File contains numerically searchable property data)
                      EINECS**, WHO
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

3078 REFERENCES IN FILE CA (1967 TO DATE)
202 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3085 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:21963 2: 133:16650 REFERENCE REFERENCE 3: 133:16514 4: 133:12432 REFERENCE REFERENCE 5: 133:8559 REFERENCE 6: 133:4547 133:3956 REFERENCE 7: 133:3950 REFERENCE 8:

```
REFERENCE
          9: 133:2404
REFERENCE 10: 133:404
L109 ANSWER 24 OF 29 REGISTRY COPYRIGHT 2000 ACS
RN
     153-18-4 REGISTRY
     4H-1-Benzopyran-4-one, 3-[[6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-
CN
     glucopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA
     INDEX NAME)
OTHER CA INDEX NAMES:
     Flavone, 3,3',4',5,5',7-hexahydroxy-, (6-O-.alpha.-L-rhamnosyl-.beta.-D-
CN
     glucoside) (7CI)
CN
     Ilixanthin (6CI)
CN
    Rutin (8CI)
OTHER NAMES:
     3,3',4',5,7-Pentahydroxyflavone 3-0-rutinoside
CN
     3,3',4',5,7-Pentahydroxyflavone 3-rutinoside
CN
     3-Rutinosylquercetin
CN
     5,7,3',4'-Tetrahydroxyflavonol-3-0-rutinoside
CN
CN
    Birutan
     C.I. 75730
CN
    Eldrin
CN
CN
     Globulariacitrin
    Globularicitrin
CN
    Melin
CN
    Myrticalorin
CN
    Myrticolorin
CN
CN
    Myticolorin
CN
    Osyritin
CN
    Osyritrin
CN
    Oxyritin
CN
    Paliuroside
CN
    Phytomelin
     Quercetin 3-.beta.-rutinoside
CN
     Ouercetin 3-O-.beta.-D-rutinoside
CN
    Quercetin 3-0-.beta.-rutinoside
CN
    Quercetin 3-O-rutinoside
CN
CN
    Quercetin 3-rhamnoglucoside
    Quercetin 3-rutinoside
CN
CN
    Rutabion
CN
    Rutinic acid
CN
    Rutosid
CN
    Rutoside
CN
    Sophorin
CN
    Tanrutin
CN
    Violaquercitrin
    STEREOSEARCH
FS
     164535-43-7, 1416-01-9, 158560-09-9, 56764-99-9, 18449-50-8, 146525-66-8,
DR
     48197-72-4, 115888-40-9
     C27 H30 O16
MF
CI
     COM
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
       CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE,
       GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT,
       NIOSHTIC, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL,
       VETU
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**, NDSL**, TSCA**, WHO
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

3990 REFERENCES IN FILE CA (1967 TO DATE)

171 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3995 REFERENCES IN FILE CAPLUS (1967 TO DATE)

3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:16650

REFERENCE 2: 133:14745

REFERENCE 3: 133:14602

REFERENCE 4: 133:14598

REFERENCE 5: 133:12158

REFERENCE 6: 133:4163

REFERENCE 7: 133:3828

REFERENCE 8: 133:1584

REFERENCE 9: 133:404

REFERENCE 10: 132:352828

L109 ANSWER 25 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 150-13-0 REGISTRY

CN Benzoic acid, 4-amino- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzoic acid, p-amino- (8CI)

OTHER NAMES:

CN 4-Aminobenzoic acid

CN 4-Carboxyaniline

CN Amben

CN Aniline-4-carboxylic acid

CN Anti-Chromotrichia factor

CN Anticanitic vitamin

CN Chromotrichia factor

CN Hachemina

CN p-Aminobenzoic acid

CN p-Carboxyaniline

CN p-Carboxyphenylamine

CN PAB

CN PABA

CN Pabacyd

CN Pabafilm

CN Pabamine

CN Paraminol

```
CN
     Paranate
CN
     Romavit
CN
     Trichochromogenic factor
     Vitamin BX
CN
     Vitamin H'
CN
FS
     3D CONCORD
DR
     8014-65-1
     C7 H7 N O2
MF
     COM
CI
                  ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN*,
LC
     STN Files:
       BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,
       CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,
       CSNB, DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB,
       IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC,
       PDLCOM*, PHAR, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, ULIDAT,
       USAN, USPATFULL, VETU
         (*File contains numerically searchable property data)
     Other Sources:
                     DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
            CO2H
```

5385 REFERENCES IN FILE CA (1967 TO DATE) 375 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 5389 REFERENCES IN FILE CAPLUS (1967 TO DATE) 10 REFERENCES IN FILE CAOLD (PRIOR TO 1967) 1: 133:22490 REFERENCE 2: 133:22162 REFERENCE 133:17239 3: REFERENCE 133:17172 REFERENCE 4: 5: 133:14840 REFERENCE 6: 133:14837 REFERENCE 7: 133:12044 REFERENCE 133:8880 8: REFERENCE 9: 133:8879 REFERENCE REFERENCE 10: 133:4278 L109 ANSWER 26 OF 29 REGISTRY COPYRIGHT 2000 ACS 120-46-7 REGISTRY RN 1,3-Propanedione, 1,3-diphenyl- (6CI, 8CI, 9CI) (CA INDEX NAME) CN OTHER NAMES: .omega.-Benzoylacetophenone CN 1,3-Diphenyl-1,3-propanedione CN 2-Benzoylacetophenone CN Dibenzoylmethane CN CN Karenzu DK 2 Phenyl phenacyl ketone CN Rhodiastab 83 CN

3D CONCORD

61346-73-4

FS

DR

```
C15 H12 O2
MF
CI
     COM
LC
     STN Files:
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE, GMELIN*, HODOC*,
       IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, RTECS*,
       SPECINFO, TOXLINE, TOXLIT, USPATFULL, VTB
         (*File contains numerically searchable property data)
                      DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
Ph-C-CH2-C-Ph
            1857 REFERENCES IN FILE CA (1967 TO DATE)
             198 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            1859 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              60 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
REFERENCE
            1:
                133:26060
REFERENCE
            2:
                133:24510
REFERENCE
            3:
                133:22170
REFERENCE
            4:
                133:8884
REFERENCE
            5:
                133:8880
REFERENCE
                133:8879
            7:
                133:7084
REFERENCE
REFERENCE
                133:5117
REFERENCE
                132:356113
            9:
REFERENCE 10:
                132:356090
L109 ANSWER 27 OF 29 REGISTRY COPYRIGHT 2000 ACS
     119-61-9 REGISTRY
    Methanone, diphenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Benzophenone (7CI, 8CI)
OTHER NAMES:
CN
     .alpha.-Oxodiphenylmethane
     .alpha.-Oxoditane
CN
     Adjutan 6016
CN
CN
     Benzene, benzoyl-
     Benzoylbenzene
CN
CN
     Diphenyl ketone
CN
     Diphenylmethanone
CN
     Kayacure BP
CN
     Phenyl ketone
CN
     Speedcure BP
FS
     3D CONCORD
MF
     C13 H10 O
CI
     COM
                 AGRICOLA, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2,
LC
       BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD,
       CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
```

CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC,

PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL, VTB (*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

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0
Ph-C-Ph
           11837 REFERENCES IN FILE CA (1967 TO DATE)
             436 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           11853 REFERENCES IN FILE CAPLUS (1967 TO DATE)
               1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
            1: 133:26300
REFERENCE
               133:24900
REFERENCE
            2:
REFERENCE
            3:
               133:24593
REFERENCE
            4:
               133:18461
REFERENCE
            5:
               133:18460
REFERENCE
            6:
               133:18459
REFERENCE
            7:
               133:18448
REFERENCE
            8:
                133:17577
            9:
               133:17480
REFERENCE
REFERENCE 10:
                133:17235
L109 ANSWER 28 OF 29 REGISTRY COPYRIGHT 2000 ACS
     117-39-5 REGISTRY
RN
     4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy- (9CI)
CN
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Flavone, 3,3',4',5,7-pentahydroxy- (7CI, 8CI)
CN
     Flavone, 3,4',5,5',7-pentahydroxy- (6CI)
CN
OTHER NAMES:
     3,3',4',5,7-Pentahydroxyflavone
CN
     3,5,7,3',4'-Pentahydroxyflavone
CN
     C.I. 75670
CN
CN
     C.I. Natural Yellow 10
     Cyanidelonon 1522
CN
CN
     Meletin
CN
     Ouercetin
CN
     Quercetine
CN
     Quercetol
CN
     Ouercitin
CN
     Ouertin
CN
     Ouertine
CN
     Sophoretin
CN
     Xanthaurine
     3D CONCORD
FS
     73123-10-1, 74893-81-5
DR
     C15 H10 O7
MF
CI
```

ADISINSIGHT, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS,

BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,

LC

STN Files:

CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHAR, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TULSA, USPATFULL, VETU (*File contains numerically searchable property data) ther Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

6191 REFERENCES IN FILE CA (1967 TO DATE)

487 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6201 REFERENCES IN FILE CAPLUS (1967 TO DATE)

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:22239

REFERENCE 2: 133:16661

REFERENCE 3: 133:16650

REFERENCE 4: 133:14645

REFERENCE 5: 133:14605

REFERENCE 6: 133:14602

REFERENCE 7: 133:12495

REFERENCE 8: 133:4163

REFERENCE 9: 133:3933

REFERENCE 10: 133:3828

L109 ANSWER 29 OF 29 REGISTRY COPYRIGHT 2000 ACS

RN 50-81-7 REGISTRY

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Ascorbic acid

CN 3-keto-L-Gulofuranolactone

CN 3-Oxo-L-gulofuranolactone

CN Adenex

CN Allercorb

CN Antiscorbic vitamin

CN Antiscorbutic vitamin

CN Ascoltin

CN Ascorbajen

CN Ascorbic acid

CN Ascorbutina

CN Ascorin

CN Ascorteal

CN Ascorvit

CN C-Quin

CN C-Vimin

CN Cantan

CN Cantaxin

CN Catavin C

CN Ce-Mi-Lin

```
CN
     Ce-Vi-Sol
CN
     Cebicure
CN
     Cebion
     Cebione
CN
CN
     Cecon
CN
     Cegiolan
CN
     Ceglion
CN
     Celaskon
CN
     Celin
CN
     Cemagyl
CN
     Cenetone
CN
     Cereon
CN
     Cergona
CN
     Cescorbat
CN
     Cetamid
CN
     Cetemican
CN
     Cevalin
CN
     Cevatine
CN
     Cevex
     Cevimin
CN
     Cevital
CN
     Cevitamic acid
CN
CN
     Cevitamin
     Cevitan
CN
     Cevitex
CN
     Chewcee
CN
CN
     Ciamin
CN
     Cipca
CN
     Citrovit
     Colascor
CN
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     DISPLAY
FS
     STEREOSEARCH
     56533-05-2, 57304-74-2, 57606-40-3, 56172-55-5, 129940-97-2, 14536-17-5,
DR
     50976-75-5, 154170-90-8, 89924-69-6, 30208-61-8, 259133-78-3
MF
     C6 H8 O6
CI
     COM
                  AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT,
LC
     STN Files:
       APIPAT2, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA,
       CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX,
       CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE,
       GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA,
       MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHAR, PIRA,
       PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN,
       USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**, WHO
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

Absolute stereochemistry.

39605 REFERENCES IN FILE CA (1967 TO DATE)
952 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
39657 REFERENCES IN FILE CAPLUS (1967 TO DATE)
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:26204

REFERENCE 2: 133:22445

REFERENCE 3: 133:22440

REFERENCE 4: 133:22406

REFERENCE 5: 133:22200

REFERENCE 6: 133:22197

REFERENCE 7: 133:22178

REFERENCE 8: 133:22148

REFERENCE 9: 133:21992

REFERENCE 10: 133:20852

=> d ide can tot 1110

L110 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2000 ACS

RN 38975-80-3 REGISTRY

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.alpha.-D-glucofuranosyloxy)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Quercetin 3-.alpha.-D-glucofuranoside

FS STEREOSEARCH

MF C21 H20 O12

LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 77:162005

L110 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2000 ACS RN 21637-25-2 REGISTRY

```
4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(.beta.-D-
     glucofuranosyloxy) -5,7-dihydroxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Flavone, 3,3',4',5,7-pentahydroxy-, 3-.beta.-D-glucofuranoside
CN
CN
     Glucofuranoside, quercetin-3, .beta.-D-
OTHER NAMES:
CN
     Isoquercitrin
     Isoquercitroside
CN
     Isotrifoliin
CN
CN
     Quercetin 3-(.beta.-D-glucofuranoside)
     Quercetin 3-0-.beta.-D-glucofuranoside
CN
     STEREOSEARCH
FS
     1399-98-0
DR
     C21 H20 O12
MF
CI
     COM
                  AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
       CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC,
       RTECS*, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
                      EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
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Absolute stereochemistry.

644 REFERENCES IN FILE CA (1967 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
646 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 133:14602 133:3828 REFERENCE 2: 132:346807 REFERENCE 3: REFERENCE 4: 132:332064 REFERENCE 132:332060 5: REFERENCE 132:321070 REFERENCE 7: 132:278327

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REFERENCE
           8: 132:262608
REFERENCE
           9:
              132:221707
REFERENCE 10: 132:212783
=> d his 1111-
     (FILE 'REGISTRY' ENTERED AT 10:45:36 ON 03 JUL 2000)
     FILE 'HCAPLUS' ENTERED AT 10:49:06 ON 03 JUL 2000
           646 S L110
L111
           524 S L111 AND L84, L85
L112
           122 S L112 AND (COMBIN? OR FORMUL? OR MIX? OR SYNERG? OR COMPOSITIO
L113
            24 S L113 AND (1 OR 62 OR 63)/SC
L114
            14 S L113 AND (1 OR 62 OR 63)/SX
L115
            30 S L114,L115 AND (PY<=1999 OR PRY<=1999 OR PRY.B<=1999 OR AY<=19
L116
=> d all tot 1116
L116 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2000 ACS
    2000:53336 HCAPLUS
AΝ
DN
     132:88203
    Hypericin, hypericin derivatives, and Hypericum extract as specific T-type
ΤI
     calcium channel blockers, and their use as T-type calcium channel targeted
    Shan, Jacqueline J.; Wu, Xi-Chen; Pang, Peter K. T.; Ling, Lei
IN
     CV Technologies Inc., Can.
PA
     PCT Int. Appl., 33 pp.
SO
     CODEN: PIXXD2
    Patent
DT
    English
LA
    A01N065-00; A01N035-00; A01N029-00; C07C017-00; C07C019-08; C07C022-00
IC
    1-12 (Pharmacology)
CC
FAN.CNT 1
                                          APPLICATION NO. DATE
     PATENT NO.
                     KIND DATE
     WO 2000002455
                     A1
                           20000120
                                         WO 1999-US14132 19990709 <--
PI
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
            JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
            TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
            MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                                            19990709 <--
     AU 9949581
                          20000201
                      A1
                                         AU 1999-49581
PRAI US 1998-PV92227 19980709 <--
     WO 1999-US14132 19990709 <--
os
    MARPAT 132:88203
     Hypericin has been shown to specifically inhibit T-type calcium channel
AB
     activity. Hypericum ext. contg. hypericin also inhibits T-type calcium
     channel activity. Moreover, other chems. in Hypericum ext. showed a
     synergistic effect to hypericin. In view of this, hypericin or
     hypericin-contg. Hypericum ext. can be used as T-channel blockers.
     Hypericum ext., ext. of other species of the Hypericum genus, ext. of
     other plants contg. hypericin, hypericin derivs., hypericin analogs, e.g.
     pseudohypericin, and other Hypericum ext. constituents can be used as
     therapeutics targeted at T-type calcium channels for treatment of diseases
     assocd. with T-channel abnormality. Methods for administering hypericin
     and Hypericum ext. are disclosed.
ST
     hypericin deriv T type calcium channel blocker; Hypericum ext T type
```

calcium channel blocker

IT Brain

(aging; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart, disease

(angina pectoris; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Aging, animal

(brain; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Ion channel blockers

(calcium, T-type; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Nervous system

(degeneration; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT St.-John's-wort (Hypericum)

(ext.; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart, disease

(failure, chronic; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart, disease

(failure; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Anti-ischemic agents

Antiarrhythmics

Anticonvulsants

Antidepressants

Antidiabetic agents

Antihypertensives

Antimigraine agents

Cardiovascular agents

St.-John's-wort (Hypericum perforatum)

(hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Nerve, neoplasm

(neuroblastoma, N1E115 cells; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Parturition

(premature; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Blood vessel

(smooth muscle, cells; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT Heart

(ventricle, ventricular cells; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT 9004-10-8, Insulin, biological studies

RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (hyper- and hypoinsulinemia; hypericin, derivs., and Hypericum ext. as specific T-type calcium channel blockers and use as T-type calcium channel targeted therapeutics)

IT 52-39-1, Aldosterone

```
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
        (hyperaldosteronemia; hypericin, derivs., and Hypericum ext. as
        specific T-type calcium channel blockers and use as T-type calcium
        channel targeted therapeutics)
TΤ
     117-39-5, Quercetin 153-18-4, Rutin
                                          482-36-0,
     Hyperoside 522-12-3, Quercitrin
                                       548-04-9, Hypericin
     548-04-9D, Hypericin, derivs. and analogs
                                                 1617-53-4, Amentoflavone
     11079-53-1, Hyperforin 21637-25-2, Isoquercitrin
                                                        55954-61-5.
                       143183-63-5, Adhyperforin
     Pseudohypericin
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (hypericin, derivs., and Hypericum ext. as specific T-type calcium
        channel blockers and use as T-type calcium channel targeted
        therapeutics)
RE.CNT
       3
RE
(1) Kikuta; US 5433957 A 1995
(2) Mazur; US 5120412 A 1992
(3) Noamesi; Planta Medica 1991, V57(Suppl 1), PA55
L116 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2000 ACS
ΑN
     1999:764378 HCAPLUS
     131:355899
DN
TI
     Flavonoid compounds and their use, especially in cosmetics
     Bresson-Rival, Delphine; Mariotte, Anne-Marie; Boumendjel, Ahcene;
IN
     Perrier, Eric
     Coletica S. A., Fr.
PA
     Ger. Offen., 22 pp.
SO
     CODEN: GWXXBX
DΨ
     Patent.
     German
LΑ
     ICM C07D311-02
IC
     ICS A61K007-00; A61K031-525
     62-1 (Essential Oils and Cosmetics)
CC
     Section cross-reference(s): 26, 63
FAN.CNT 1
                    KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
                     ____
                    A1
                           19991125
                                          DE 1999-19922287 19990514 <--
     DE 19922287
PΙ
                           19991119
                                          FR 1998-6194
                                                          19980515 <--
     FR 2778663
                     A1
     JP 2000026263
                     A2 20000125
                                          JP 1999-136331 19990517 <--
PRAI FR 1998-6194
                    19980515 <--
    MARPAT 131:355899
os
     4-Keto flavonoids (phenylchromones) are stabilized for use in cosmetic,
AB
     pharmaceutical, and dietetic compns. by esterification on a free
     OH group with a C3-30 monocarboxylic acid without loss of their biol.
     properties. These esters have enhanced lipid soly. and affinity for cell
     membranes and the epidermis. Thus, hesperetin 16.55 reacted with lauroyl
     chloride 26.5 mmol in refluxing PhMe to form dilauroylhesperetin in 64%
            The diester showed greater radical-scavenging activity than native
     hesperetin.
     flavonoid stabilization esterification; hesperetin lauroyl cosmetic
ST
     pharmaceutical
ΙT
     Glycosides
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (C-flavonoid oxo, esters; flavonoid compds. for use esp. in cosmetics)
IT
     Cosmetics
        (antiaging; flavonoid compds. for use esp. in cosmetics)
IT
     Skin, disease
        (cuperosis; flavonoid compds. for use esp. in cosmetics)
IT
     Cosmetics
     Drug delivery systems
        (emulsions; flavonoid compds. for use esp. in cosmetics)
```

IT

Fatty acids, biological studies

```
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (esters, with flavones; flavonoid compds. for use esp. in cosmetics)
ΙT
     Flavones
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (esters; flavonoid compds. for use esp. in cosmetics)
IT
     Agrochemical formulations
     Antiobesity agents
     Cosmetics
     Dehydration, physiological
     Drug delivery systems
     Erythema
     Radical scavengers
     Shampoos
        (flavonoid compds. for use esp. in cosmetics)
IT
     Glycosides
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BUU (Biological use, unclassified); FFD (Food or feed use); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (flavonoid, oxo, esters; flavonoid compds. for use esp. in cosmetics)
IT
     Cosmetics
        (gels; flavonoid compds. for use esp. in cosmetics)
IT
        (inhibitors; flavonoid compds. for use esp. in cosmetics)
     Enzymes, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; flavonoid compds. for use esp. in cosmetics)
IT
     Cosmetics
        (lipsticks; flavonoid compds. for use esp. in cosmetics)
IT
     Elasticity
        (of skin, agents improving; flavonoid compds. for use esp. in
        cosmetics)
IT
     Bath preparations
        (shower gels; flavonoid compds. for use esp. in cosmetics)
IT
     Oxidation
        (stabilization of flavonoids towards; flavonoid compds. for use esp. in
        cosmetics)
IT
     Extracellular matrix
        (stimulants for formation of; flavonoid compds. for use esp. in
        cosmetics)
IT
     Capillary vessel
     Vein
        (strengthening of; flavonoid compds. for use esp. in cosmetics)
IT
     Drug delivery systems
        (topical; flavonoid compds. for use esp. in cosmetics)
TΤ
     Cosmetics
        (wrinkle-preventing; flavonoid compds. for use esp. in cosmetics)
                                         250707-88-1P, Monopalmitoylhesperitin
     480-41-1DP, Naringenin, triesters
ΙŢ
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); FFD (Food or feed use); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (flavonoid compds. for use esp. in cosmetics)
     153-18-4DP, Rutin, lauroyl acylated
IT
                                            520-27-4DP, Diosmin, lauroyl
                                                             205057-65-4P
     acylated
               82546-97-2P
                              205057-54-1P
                                             205057-64-3P
     211104-68-6P
                    250661-83-7P
                                   250661-85-9P
                                                   250661-86-0P
                                                                  250661-87-1P
                    250661-89-3P
                                   250661-90-6P
                                                   250661-91-7P
                                                                  250661-92-8P
     250661-88-2P
                    250707-81-4P, Dilauroylhesperitin
     250661-93-9P
                                                         250707-82-5P,
                             250707-84-7P, Dipalmitoylhesperitin
     Monolauroylhesperitin
     250707-85-8P, Triundecylenoylhesperitin
     RL: AGR (Agricultural use); BUU (Biological use, unclassified); FFD (Food
     or feed use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
```

```
(flavonoid compds. for use esp. in cosmetics)
ΙT
     106-31-0, Butyric anhydride
                                 112-16-3, Lauroyl chloride
                                                                112-67-4,
     Palmitoyl chloride 117-39-5, Quercetin 153-18-4, Rutin
               480-20-6, Dihydrokaempferol
                                             480-41-1, Naringenin
                                                                     482-36-0,
     Hyperoside 491-70-3, Luteolol 520-18-3, Kaempferol
     520-26-3, Hesperidin 520-27-4, Diosmin 520-33-2, Hesperitin
     520-36-5, Apigenol 521-32-4, Bilobetin 522-12-3,
     Quercitroside 552-58-9, Eriodictyol
                                           1617-53-4, Amentoflavone
     3122-88-1, Eucalyptin 6601-62-3, Cirsimaritin 10236-47-2, Naringin
     19202-36-9, Hinokiflavone
                                20310-89-8, Saponarin 20316-62-5, Tiliroside
     21637-25-2, Isoquercitroside 28608-75-5
                                                51938-32-0, Shaftoside
     68236-12-4, Cajaflavanone
     RL: RCT (Reactant)
        (flavonoid compds. for use esp. in cosmetics)
     9004-06-2, Elastase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; flavonoid compds. for use esp. in cosmetics)
L116 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1999:562762 HCAPLUS
AΝ
     131:174852
DN
     Cosmetic and dermatological combinations of carnitine or
TΙ
     acylcarnitines with antioxidants
     Staeb, Franz; Schoenrock, Uwe; Schreiner, Volker; Max, Heiner; Untied,
IN
     Sven
PA
     Beiersdorf A.-G., Germany
     Ger. Offen., 18 pp.
so
     CODEN: GWXXBX
DT
     Patent
LΑ
     German
     ICM A61K007-48
IC
     ICS A61K007-42
     62-4 (Essential Oils and Cosmetics)
CC
     Section cross-reference(s): 63
FAN.CNT 1
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                                           APPLICATION NO.
                     ____
                           _____
                      A1
                            19990826
                                           DE 1998-19806890
     DE 19806890
PΙ
     EP 945126
                                           EP 1999-101742
                      A2
                            19990929
     EP 945126
                      А3
                            19991124
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRAI DE 1998-19806890 19980219 <--
     MARPAT 131:174852
os
     Prepns. contg. the title combinations are useful for
AΒ
     conditioning the skin and protecting it from environmental influences
     which cause premature skin aging. Preferred antioxidants are flavone and
     flavanone derivs. Thus, a water-in-oil cream contained paraffin oil
     10.00, petrolatum 4.00, lanolin alc. 1.00, ethoxylated hydrogenated castor
     oil 3.00, Al stearate 0.40, .alpha.-glucosylrutin 0.50, glycerin 2.00,
     O-propionyl-L-carnitine 0.20, preservative, dye, perfume, and H2O to
     100.00 wt.%.
     skin conditioner carnitine antioxidant; antiaging cosmetic acylcarnitine
ST
     flavone
IT
     Cosmetics
        (antiaging; cosmetic and dermatol. combinations of carnitine
        or acylcarnitines with antioxidants)
TT
     Antioxidants
     Sunscreens
        (cosmetic and dermatol. combinations of carnitine or
        acylcarnitines with antioxidants)
IT
     Flavones
     Flavonoids
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (cosmetic and dermatol. combinations of carnitine or
```

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acylcarnitines with antioxidants)
IT
     Cosmetics
        (creams; cosmetic and dermatol. combinations of carnitine or
        acylcarnitines with antioxidants)
     Cosmetics
TΤ
        (gels, liposome-contg.; cosmetic and dermatol. combinations
        of carnitine or acylcarnitines with antioxidants)
     Drug delivery systems
TΨ
        (gels, topical, liposome-contg.; cosmetic and dermatol.
      combinations of carnitine or acylcarnitines with antioxidants)
     Cosmetics
ΤT
     Drug delivery systems
        (lotions; cosmetic and dermatol. combinations of carnitine or
        acylcarnitines with antioxidants)
ΙT
     Drug delivery systems
        (ointments, creams; cosmetic and dermatol. combinations of
        carnitine or acylcarnitines with antioxidants)
IT
     Flavonoids
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (oxo dihydro; cosmetic and dermatol. combinations of
        carnitine or acylcarnitines with antioxidants)
ĬT
     Cosmetics
     Drug delivery systems
        (sprays; cosmetic and dermatol. combinations of carnitine or
        acylcarnitines with antioxidants)
ΙT
     Drug delivery systems
        (topical; cosmetic and dermatol. combinations of carnitine or
        acylcarnitines with antioxidants)
     58-95-7, .alpha.-Tocopheryl acetate
                                           59-02-9, .alpha.-Tocopherol
IT
     117-39-5, Quercetin 153-18-4, Rutin
                                           406-76-8,
                    406-76-8D, DL-Carnitine, acyl derivs.
                                                            480-18-2, Taxifolin
    DL-Carnitine
     520-26-3, Hesperidin 541-15-1, L-Carnitine 577-38-8, Flavanomarein
                4382-33-6, Dihydrorobinetin
                                               7085-55-4, Troxerutin
     3040-38-8
     10236-47-2, Naringin 14992-62-2
                                         20064-1\(\frac{1}{2}\)-1 21637-25-2,
                                               38965-51-4, Eriodictyol
     Isoquercitrin
                     23869-24-1, Monoxerutin
                   108910-78-7, Magnesium ascorbyl phosphate 130603-71-3,
     7-glucoside
     .alpha.-Glucosylrutin
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (cosmetic and dermatol. combinations of carnitine or
        acylcarnitines with antioxidants)
RE.CNT
RE
(1) Anon; EP 0774249 A2 HCAPLUS
(2) Anon; FR 2654618 HCAPLUS
(3) Anon; US 4839159 HCAPLUS
L116 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2000 ACS
AΝ
     1999:360406 HCAPLUS
     132:97939
DN
TI
     Quality assessment of Paliurus spina-christi extracts
    Brantner, Adelheid H.; Males, Zeljan
ΑU
     Institute of Pharmacognosy, University of Graz, Graz, A-8010, Austria
CS
     J. Ethnopharmacol. (1999), 66(2), 175-179
so
     CODEN: JOETD7; ISSN: 0378-8741
    Elsevier Science Ireland Ltd.
PB
DT
     Journal
    English
LA
CC
     63-4 (Pharmaceuticals)
     Because the flavonoid glycosides can be considered as suitable compds. for
AB
     the quality assessment of Paliurus spina-christi Mill., a HPLC method for
     the sepn. and quantification of these compds. in methanolic exts. of the
     different plant parts (leaves, flowers, fruits) is described. The system
     used is a reversed-phase column and gradient elution with water-phosphoric
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acid-acetonitrile. The anal. showed the flavonoid contents of the

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different plant parts and the different compn. of the flavonoid
     pattern. The highest flavonoid content was found in the leaves in June
     and July. No significant influence of growing site or year of harvesting
     on the flavonoid content was obsd. As quercetin 3-0-rhamnoglucoside
     7-0-rhamnoside and rutin are the main flavonoid compds. present in alt-
     plant parts investigated, it is suggested that these compds. should be
     used for the quality assessment of Paliurus spina-christi.
     Paliurus ext flavonoid quality
ST
TΤ
    HPLC
     Paliurus spina-christi
        (quality assessment of Paliurus spina-christi exts.)
IT
     Flavonoids
     RL: ANT (Analyte); BOC (Biological occurrence); THU (Therapeutic use);
     ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES
     (Uses)
        (quality assessment of Paliurus spina-christi exts.)
     153-18-4, Rutin 21637-25-2, Isoquercitrin
                                                 57526-56-4
IT
                               254730-13-7
     57528-70-8
                  89439-59-8
     RL: ANT (Analyte); BOC (Biological occurrence); THU (Therapeutic use);
    ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES
     (Uses)
        (quality assessment of Paliurus spina-christi exts.)
RE.CNT
        18
RE
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L116 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2000 ACS
ΑN
    1999:204477 HCAPLUS
     130:322964
DN
    Bioactive flavonoidal constituents from Pithecellobium dulce (leaves)
ΤΊ
/AU
     Saxena, V. K.; Singhal, Madhuri
    Natural Products Laboratory, Chemistry Dept., Dr. H. S. Gour University,
CS
     Sagar, 470333, India
     J. Inst. Chem. (India) (1998), 70(5), 168-171
ŞΦ
     CODEN: JOICA7; ISSN: 0020-3254
     Institution of Chemists (India)
PB
DT
     Journal
LA
     English
     11-1 (Plant Biochemistry)
CC
     Section cross-reference(s): 5, 26, 63
     The flavonol glycoside quercetin 3-0-glucoside (isoquercetrin) was
AB
     isolated along with kaempferol from the leaves of Pithecellobium dulce.
     The constituents were been identified by spectral anal. and chem. degrdn.
     methods. The combined leaf ext. (of both compds.) possessed
     promising antifungal and antibacterial properties.
     antimicrobial flavonoid Pithecellobium; quercetin glycoside
ST
     Pithecellobium; kaempferol Pithecellobium
     Pithecellobium dulce
IT
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(bioactive flavonoids from Pithecellobium dulce leaves)
IT
     Flavonoids
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological
     occurrence); BIOL (Biological study); OCCU (Occurrence)
        (bioactive flavonoids from Pithecellobium dulce leaves)
ΙT
     Antibacterial agents
     Fungicides
        (flavonoid ext. of Pithecellobium dulce leaves as)
     520-18-3, Kaempferol
IT
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological
     occurrence); BIOL (Biological study); OCCU (Occurrence)
        (bioactive flavonoids from Pithecellobium dulce leaves)
IT
     21637-25-2, Isoquercitrin
     RL: BAC (Biological activity or effector, except adverse); BOC (Biological
     occurrence); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence)
        (bioactive flavonoids from Pithecellobium dulce leaves)
IT
     7251-37-8P
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and NMR spectral properties of)
     117-39-5P, Quercetin
IT
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation)
        (prepn. and acetylation and spectral properties of)
     143724-69-0P
IT
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and spectral properties of)
RE.CNT
RE
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L116 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1999:171276 HCAPLUS
ΑN
DN
     131:582
     Extracts and constituents of Hypericum perforatum inhibit the binding of
ΤI
     various ligands to recombinant receptors expressed with the Semliki Forest
     virus system
     Simmen, U.; Burkard, W.; Berger, K.; Schaffner, W.; Lundstrom, K.
ΑIJ
CS
     Dept. of Pharmaceutical Biology, Institute of Pharmacy, University of
     Basel, Basel, CH-4057, Switz.
     J. Recept. Signal Transduction Res. (1999), 19(1-4), 59-74
SO
     CODEN: JRETET; ISSN: 1079-9893
    Marcel Dekker, Inc.
PB
DT
     Journal
LΑ
     English
CC
     1-11 (Pharmacology)
     Exts., fractions and constituents of Hypericum perforatum were studied for
AΒ
     in vitro receptor binding with various ligands to recombinant CNS
     receptors expressed with the Semliki Forest virus expression system. For
     this purpose we have prepd. membranes of CHO cells with high d. of several
     opioid, serotonin, estrogen, histamine, GABAA, neurokinin and metabotropic
     glutamate receptors, resp. A lipophilic Hypericum fraction revealed
     relatively potent inhibition to the binding of the .mu.-, .delta.-, and
     .kappa.-opioid and the 5-HT6 and 5-HT7 receptors. Moreover, Hypericum
     constituents such as the naphthodianthrones, hypericin and
     pseudohypericin, and the phloroglucinole hyperforin inhibited both binding
     to the opioid and serotonin receptors in the lower micromolar range.
     Estrogen binding was 50% inhibited by the biflavonoid I3, II8-biapigenin at
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micromolar concn. The lipophilic Hypericum fraction provided a less potent inhibition of the neurokinin-1 receptor binding compared to the

opioid and serotonin receptors. A total ethanolic Hypericum ext. potently inhibited GABAA binding at approx. 3 .mu.g/mL. This inhibition is however not specific to Hypericum, since exts. of plants like Valeriana officinalis and Passiflora incarnata showed similar inhibitions. Binding to neither histamine nor metabotropic glutamate receptors was affected by Hypericum exts. These results support the hypothesis that several active constituents of Hypericum might in a synergistic way contribute to its antidepressant effect in the central nervous system. antidepressant Hypericum flavonoid opioid serotonin receptor Estrogen receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (-.alpha.; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) 5-HT receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (5-HT1; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) 5-HT receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (5-HT6, 6; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) 5-HT receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (5-HT7; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) GABA receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (GABAA; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) Histamine receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (H1; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) Histamine receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (H2; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) Tachykinin receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (NK1; inhibition of ligand-binding to recombinant receptors expressed with the Semliki Forest virus system by the exts. and constituents of Hypericum perforatum) Antidepressants Drug interactions Passionflower (Passiflora incarnata) St.-John's-wort (Hypericum perforatum) Valerian (Valeriana officinalis) (inhibition of ligand-binding to recombinant receptors expressed with

the Semliki Forest virus system by the exts. and constituents of

IT Flavonoids

Hypericum perforatum)

ST IT

IT

IT

ΙT

ΙT

ΙT

ΙT

ΙT

ΙT

IT

IT

IT

IT

IT

ΙT

IT

RE

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Natural products, pharmaceutical
     Proanthocyanidins
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); THU (Therapeutic use);
     BIOL (Biological study); PROC (Process); USES (Uses)
        (inhibition of ligand-binding to recombinant receptors expressed with
        the Semliki Forest virus system by the exts. and constituents of
        Hypericum perforatum)
     Ligands
     RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
        (inhibition of ligand-binding to recombinant receptors expressed with
        the Semliki Forest virus system by the exts. and constituents of
        Hypericum perforatum)
     5-HT receptors
     Histamine receptors
     Opioid receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (inhibition of ligand-binding to recombinant receptors expressed with
        the Semliki Forest virus system by the exts. and constituents of
        Hypericum perforatum)
     Glutamate receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (metabotropic, mGluR2; inhibition of ligand-binding to recombinant
        receptors expressed with the Semliki Forest virus system by the exts.
        and constituents of Hypericum perforatum)
     Opioid receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (.kappa.-opioid; inhibition of ligand-binding to recombinant receptors
        expressed with the Semliki Forest virus system by the exts. and
        constituents of Hypericum perforatum)
     Opioid receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (.delta.-opioid; inhibition of ligand-binding to recombinant receptors
        expressed with the Semliki Forest virus system by the exts. and
        constituents of Hypericum perforatum)
     Opioid receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (.mu.-opioid; inhibition of ligand-binding to recombinant receptors
        expressed with the Semliki Forest virus system by the exts. and
        constituents of Hypericum perforatum)
     117-39-5, Quercetin 153-18-4, Rutin
                                          482-36-0,
                                      548-04-9, Hypericin
     Hyperosid 522-12-3, Quercitrin
     1617-53-4, Amentoflavone 11079-53-1, Hyperforin 21637-25-2,
                                                   101140-06-1,
                     55954-61-5, Pseudohypericin
     Isoquercitrin
     I3, II8-Biapigenin
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); THU (Therapeutic use);
     BIOL (Biological study); PROC (Process); USES (Uses)
        (inhibition of ligand-binding to recombinant receptors expressed with
        the Semliki Forest virus system by the exts. and constituents of
        Hypericum perforatum)
RE.CNT
       27
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- L116 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2000 ACS
- AN 1998:538671 HCAPLUS
- DN 129:254958
- TI Antigenotoxicity of quercetin and its glycosides against benzo(a)pyrene-induced genotoxicity
- AU Kim, Jeong Han; Heo, Moon Young
- CS College Pharmacy, Kangwon National Univ., Chunchon, 200-701, S. Korea
- SO Yakhak Hoechi (1998), 42(4), 414-421
 - CODEN: YAHOA3; ISSN: 0513-4234
- PB Pharmaceutical Society of Korea
- DT Journal
- LA Korean
- CC 1-12 (Pharmacology)
- AΒ The suppressive effects of quercetin and its glycosides quercitrin (quercetin-3-rhamnoside), isoquercitrin (quercetin-3-glucoside), hyperin (quercetin-3-galactoside), and rutin (quercetin-3-rhamnosyl glucoside) on the genotoxicity of benzo(a)pyrene (BP) were studied in vitro using the sister chromatid exchange (SCE) test in mouse spleen lymphocytes and in vivo using the micronucleus test in mouse peripheral blood cells. The BP-induced SCEs in vitro were slightly decreased by the simultaneous cell treatment with quercetin and its glycosides. N-methyl-N-nitrosourea (MNU)-induced micronucleated reticulocyte (MNRETs) counts in vivo were decreased in dose-dependent manners by all 5 compds. tested. no differences between the quercetin aglycon and the glycosides in the suppressive effects. To elucidate the action mechanism of quercetin aglycon and its glycosides against the BP genotoxicity, the DNA binding assay with BP was evaluated. Quercetin aglycon and its glycosides inhibited the BP metab. in the presence of S-9 mix and decreased the BP binding to calf thymus DNA with the S-9 mix. The antiqenotoxicity of quercetin and its glycosides against the BP genotoxicity may be due to decreased DNA binding of BP and inhibition of BP metab. Quercetin and its glycosides may act as antigenotoxic agents and may be useful as chemopreventive agents against polycyclic arom. hydrocarbons like BP.
- ST benzopyrene genotoxicity quercetin glycoside prevention
- IT Genotoxicity

(quercetin and its glycosides protective effects against benzo(a)pyrene-induced genotoxicity)

- IT 50-32-8, Benzo[a]pyrene, biological studies
 - RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (quercetin and its glycosides protective effects against benzo(a)pyrene-induced genotoxicity)
- IT 117-39-5, Quercetin 153-18-4, Rutin 482-36-0, Hyperin
 522-12-3, Quercitrin 21637-25-2, Isoquercitrin
 RL: BAC (Biological activity or effector, except adverse); BIOL

(Biological study)

(quercetin and its glycosides protective effects against benzo(a)pyrene-induced genotoxicity)

L116 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:45414 HCAPLUS

DN 128:162680

TI Brazilian medicinal plants: a rich source of immunomodulatory substances

AU Rossi-Bergmann, Bartira; Costa, Sonia S.; de Moraes, Vera Lucia G.

CS Instituto de Biofisica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 21941-590, Brazil

SO Cienc. Cult. (Sao Paulo) (1997), 49(5/6), 395-401 CODEN: CCUPAD; ISSN: 0009-6725

PB Sociedade Brasileira para o Progresso da Ciencia

DT Journal

LA English

CC 1-7 (Pharmacology)

Section cross-reference(s): 11

Novel immunosuppressive and immunostimulatory substances are strongly AΒ needed to replace the existing toxic drugs currently used in the treatment of cancer, transplant rejection and autoimmune diseases or viral infections. We have tested the immunomodulatory activity of the crude ext. of several plant species used in the Brazilian popular medicine. found that two Kalanchoe species - K. pinnata and K. brasiliensis - were very potent in inhibiting both T cell proliferation and the expression of surface IL-2R.alpha.. The inhibitory effect may be selective as it did not affect the activity of natural killer (NK) cells. The immunosuppressive effect of K. pinnata was tested in mice, and it proved to inhibit T cell-mediated responses, such as the mixed leukocyte reaction and the delayed-type hypersensitivity reaction. effects were also obsd., such as protection against cutaneous leishmaniasis and increased nitric oxide prodn., two situations in which immunosuppression may be involved. In the search for the active substance, we found that quercetin 3-0-.alpha.-arabinopyranosyl (1.fwdarw.2)-.alpha.-L-rhamnopyranoside, a major flavonoid present in the crude ext. of K. pinnata did not affect T cell proliferation. It is possible, however, that other minor flavonoids, such as quercitrin, afzelin and a flavone are the active substance(s). Contrary to the suppressive effect of Kalanchoe, we obsd. that the crude ext. of Chenopodium ambrosioides was strongly stimulatory to murine but not human lymphocytes, and that the stimulatory substance was present in a protein-enriched fraction. These findings which were only attained due to the collaboration between interdisciplinary groups, strongly emphasize that the Brazilian flora may serve as a rich source of known and novel immunomodulatory substances.

ST immunomodulator medicinal plant Brazil; flavonoid immunomodulator medicinal plant Brazil

IT Chenopodium ambrosioides

 ${\tt Immunomodulators}$

Immunostimulants

Immunosuppressants

Kalanchoe brasiliensis

Kalanchoe pinnata

Leishmanicides

(medicinal plants of Brazil as source of immunomodulatory substances)

IT Flavones

Flavonoids

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(medicinal plants of Brazil as source of immunomodulatory substances)

IT Plant (Embryophyta)

(medicinal, of Brazil; medicinal plants of Brazil as source of immunomodulatory substances)

IT 482-39-3, Afzelin **522-12-3**, Quercitrin **21637-25-2**, Isoquercitrin 60048-92-2 78468-41-4 104683-55-8 125140-14-9 125140-17-2 160472-99-1, Kalambroside A 160473-00-7, Kalambroside B

160473-01-8, Kalambroside C 203067-24-7, Kalambroside D
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
 (medicinal plants of Brazil as source of immunomodulatory substances)

ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2000 ACS

L116 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2000 ACS AΝ 1997:399608 HCAPLUS 127:39481 DN Cosmetics containing POV elevation inhibitors and lipase inhibitors ΤI Mizuno, Takashi; Uchino, Keijiro; Miyashita, Rumiko IN Galse hily Nippon Flour Mills Co., Ltd., Japan PA Jpn. Kokai Tokkyo Koho, 13 pp. SO CODEN: JKXXAF DΨ Patent Japanese LA ICM A61K007-48 TC ICS A61K007-00 CC 62-3 (Essential Oils and Cosmetics) FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE JP 09118611 A2 19970506 JP 1995-277404 19951025 <--PΙ OS MARPAT 127:39481 The cosmetics contain POV (peroxide value) elevation inhibitors, e.g. org. AΒ solvent exts. of bran, germ, or powd. cereals, and lipase inhibitors, e.g. hinokitiol, oleanolic acid, ursonic acid, flavonoids, or their glycosides. The cosmetics prevent the degrdn. or oxidn. of fats/oils in the cosmetics and sebum and prevent acne and rough skin. Lard contg. 5% hexane ext. of bran was heated at 110.degree. to show POV 16.6 mgequiv/kg 72 h later, vs. 39.4 mgequiv/kg, for a control without the ext. A shampoo contg. 0.5 wt.% wheat bran ext. and 0.1 wt.% hinokitiol was formulated. lipid peroxidn inhibitor lipase inhibitor cosmetic; bran ext lipase ST inhibitor hinokitiol cosmetic; germ ext lipase inhibitor hinokitiol cosmetic; antiacne cosmetic lipid peroxidn inhibitor IT Cosmetics (antiacne; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors) ΙT Acne Lipid peroxidation Shampoos Skin cleansers Skin conditioners (cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors) ITFlavonoid glycosides Flavonoids RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (cosmetics contq. lipid peroxidn. inhibitors and lipase inhibitors) IT Bran Wheat flour Wheat germ (exts.; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors) TΤ Cereal (grain) (flours, exts.; cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors) TT Hair conditioners (rinses; cosmetics contq. lipid peroxidn. inhibitors and lipase inhibitors) IT Hair conditioners

(tonics; cosmetics contg. lipid peroxidn. inhibitors and lipase
inhibitors)
IT 480-41-1, Naringenin 499-44-5, Hinokitiol 508-02-1, Oleanolic acid
520-26-3, Hesperidin 520-33-2, Hesperetin 529-55-5, Naringenin

520-26-3, Hesperidin **520-33-2**, Hesperetin 529-55-5, Naringenin 7-glucoside 578-74-5 5373-11-5, Luteolin 7-glucoside 6246-46-4, Ursonic acid 6920-38-3, Luteolin 4'-glucoside 17650-84-9, Kaempferol

```
3-rutinoside 21637-25-2, Isoquercitrin
                                              26544-34-3, Apiin
     52187-80-1, Luteolin 3',7-diglucoside
                                             69306-85-0
     RL: BAC (Biological activity or effector, except adverse); BUU (Biological
     use, unclassified); BIOL (Biological study); USES (Uses)
        (cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)
ΙT
     9001-62-1, Lipase
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (cosmetics contg. lipid peroxidn. inhibitors and lipase inhibitors)
L116 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1996:619394 HCAPLUS
ΑN
     125:284526
DN
     Standardization of the birch leaf
ΤI
     Carnat, A.; Lacouture, L.; Fraisse, D.; Lamaison, J.-L.
ΑU
                                                                            Salse hut
     Lab. Pharm. Phytotherapie, Fac. Pharmacie, Clermont-Ferrand, F 63000, Fr.
CS
     Ann. Pharm. Fr. (1996), 54(5), 231-235
SO
     CODEN: APFRAD; ISSN: 0003-4509
DT
     Journal
LA
     French
CC
     63-4 (Pharmaceuticals)
     The dried leaves of Betula pendula and B. pubescens had a similar
AΒ
     flavonoid pattern. The mean concns. of the principal flavonoid compds. in
     B. pendula and B. pubescens, resp., were: total flavonoids 3.29 and 2.77%;
     hyperoside 0.80 and 0.77%; avicularin (two forms) 0.57 and 0.26%;
     qalactosyl-3-myricetol 0.37 and 0.18%; glucuronyl-3-quercetol 0.25 and
     0.36%; quercitrin 0.14 and 0.12%. The flavonoid levels were higher in
     young than in old leaves of B. pendula. Pharmacopeial specifications are
     proposed for a revision of the monograph "Betulae folium".
ST
     birch leaf flavonoid pharmacopeia
     Flavonoids
IT
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (birch (Betula) leaf content of)
IT
     Birch
        (flavonoid compn. of birch leaf)
IT
     Birch
        (Betula pendula, flavonoid compn. of leaf of)
IT
     Birch
        (Betula pubescens, flavonoid compn. of leaf of)
IT
     Pharmacopeias
        (French, flavonoid compn. of birch leaf in relation to
        Betulae folium monograph of)
                         482-36-0, Hyperoside 522-12-3,
IT
     153-18-4, Rutoside
     Quercitrin 572-30-5, Avicularin
                                       15648-86-9, Myricetin 3-galactoside
                                22688-79-5, Quercetin 3-glucuronide
     21637-25-2, Isoquercitrin
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (birch (Betula) leaf content of)
L116 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1996:449708 HCAPLUS
AN
     125:95577
DN
     Cosmetic or dermatologic compositions containing cinnamic acid
TI
     derivatives and flavonoid glycosides
IN
     Staeb, Franz; Landenzoerfer, Ghita
     Beiersdorf A.-G., Germany
PΑ
     Eur. Pat. Appl., 18 pp.
SO
     CODEN: EPXXDW
DT
     Patent
     German
LA
     ICM A61K007-48
IC
     ICS A61K007-42; A61K031-70
     62-4 (Essential Oils and Cosmetics)
```

Section cross-reference(s): 63

FAN.CNT 1

```
PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                           _____
ΡI
                     A1 19960619
                                          EP 1995-118438
                                                           19951123 <--
        R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL
    DE 4444238
                      A1
                           19960620
                                         DE 1994-4444238 19941213 <--
     JP 08259421
                      A2
                           19961008
                                          JP 1995-345018
                                                           19951208 <--
                                                           19951212 <--
    WO 9618379
                      Α1
                           19960620
                                          WO 1995-EP4905
        W:
            JP, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    WO 9618380 5
                      Α1
                                          WO 1995-EP4906
                            19960620
                                                           19951212 <--
        W: JP, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                          WO 1995-EP4907
    WO 9618381
                      A1
                           19960620
                                                           19951212 <--
            JP, US
        W:
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                          WO 1995-EP4908
    WO 9618382
                      A1
                           19960620
                                                           19951212 <--
        W: JP, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    EP 797427
                                                           19951212 <--
                                         EP 1995-942129
                      A1
                         19971001
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
    EP 799020
                      A1 19971008
                                          EP 1995-941094
                                                           19951212 <--
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
                                                           19951212 <--
    EP 799022
                      A1 19971008
                                          EP 1995-942128
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
    EP 799023
                                                           19951212 <--
                      A1 19971008
                                          EP 1995-942130
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
                                          JP 1995-518256
                                                           19951212 <--
    JP 10510522
                     T2 19981013
    JP 10510523
                      T2
                           19981013
                                          JP 1995-518257
                                                           19951212 <--
    JP 10510802
                                          JP 1995-518258
                                                           19951212 <--
                      T2
                           19981020
                                          JP 1995-518259
    JP 10510803
                                                           19951212 <--
                      T2
                           19981020
    US 5952373
                                                          19970908 <--
                           19990914
                                          US 1997-849523
                     Α
PRAI DE 1994-4444238 19941213 <--
                     19951212 <--
    WO 1995-EP4905
                              <--
    WO 1995-EP4906
                     19951212
                              <--
    WO 1995-EP4907
                     19951212
                     19951212 <--
    WO 1995-EP4908
    MARPAT 125:95577
OS
    Topical compns. contq. a cis- or trans-dihydroxycinnamic acid
AΒ
    deriv. and a flavonoid glycoside show antioxidant activity and are useful
    in treatment of skin aging and dermatoses, including polymorphic
    photodermatosis, and have low stinging potential. Thus, a water-in-oil
    emulsion cream contained paraffin oil 10.00, petrolatum 4.00, lanolin
    alcs. 1.00, ethoxylated hydrogenated castor oil 3.00, Al stearate 0.40,
     .alpha.-glucosylrutin 0.50, ferulic acid 0.50, glycerin 2.00,
    preservative, perfume, and water to 100.00 wt.%.
    cinnamate flavonoid glycoside cosmetic antioxidant; dermatosis antioxidant
ST
    ferulate rutin glycoside
TΤ
    Antioxidants
    Cosmetics
    Skin, disease
    Sunscreens
        (cosmetic or dermatol. compns. contg. cinnamic acid derivs.
        and flavonoid glycosides)
IT
    Skin, disease
        (aging, cosmetic or dermatol. compns. contg. cinnamic acid
        derivs. and flavonoid glycosides)
TΤ
    Glycosides
    RL: BAC (Biological activity or effector, except adverse); BUU (Biological
    use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (flavonoid, cosmetic or dermatol. compns. contg. cinnamic
        acid derivs. and flavonoid glycosides)
                            331-39-5D, Caffeic acid, alkyl esters
IT
    331-39-5, Caffeic acid
    522-12-3D, Quercitrin, .alpha.-glucosyl derivs.
                                                     1135-24-6,
    Ferulic acid 1135-24-6D, Ferulic acid, alkyl esters 5466-77-3
    17912-87-7D, Myricitrin, .alpha.-glucosyl derivs. 21637-25-2D,
```

 $\mathcal{N}_{\mathcal{G}}$

Isoquercitrin, .alpha.-glucosyl derivs. 130603-71-3,
.alpha.-Glucosylrutin

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cosmetic or dermatol. compns. contg. cinnamic acid derivs. and flavonoid glycosides)

L116 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:137989 HCAPLUS

DN 124:185189

TI Mucopolysaccharide fragmentation inhibitors and cosmetics containing them

IN Suetsugu, Kazuhiro; Hamai, Kaori

PA Narisu Cosmetic Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-48

ICS A61K007-00; A61K031-70; A61K035-78

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	JP 07309739	A2	19951128	JP 1994-131058	19940520 <	
os	MARPAT 124:185189					
GI						

AB Skin aging-preventing cosmetics contain mucopolysaccharide fragmentation inhibitors comprising quercetins I (R = mono- or oligosaccharide residue). Isoquercitrin inhibited 45.2 and 76.0% fragmentation of hyaluronic acid caused by ascorbic acid-Fe and H2O2-Fe, resp. A lotion was formulated from mucopolysaccharide fragmentation inhibitor 0.2, glycerin 5.0, polyoxyethylene sorbitan monolaurate (20 E.O.) 1.5, EtOH 10.0, antiseptics, perfumes, and H2O to 100 wt.%.

ST cosmetic mucopolysaccharide fragmentation inhibitor quercetin

IT Mucopolysaccharides, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(skin aging-preventing cosmetics contg. mucopolysaccharide fragmentation inhibitors comprising quercetins)

IT Cosmetics

(antiaging, skin aging-preventing cosmetics contg. mucopolysaccharide fragmentation inhibitors comprising quercetins)

IT 153-18-4, Rutin 153-18-4D, Rutin, glucosyl derivs.

Ι

482-36-0, Hyperoside **522-12-3**, Quercitrin 572-30-5, Avicularin

21637-25-2, Isoquercitrin 23284-18-6, Peltatoside

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(skin aging-preventing cosmetics contg. mucopolysaccharide

fragmentation inhibitors comprising quercetins)

IT 9004-61-9, Hyaluronic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

```
(Biological study); PROC (Process)
        (skin aging-preventing cosmetics contg. mucopolysaccharide
        fragmentation inhibitors comprising quercetins)
L116 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1996:58348 HCAPLUS
DN
     124:106700
     Method for treatment of osteoporosis with a flavonol aglycon glycoside in
ΤI
     combination with nutritional calcium
     Sawruk, Stephen
IN
PA
     Biodyn Medical Research, Inc., USA
SO
     U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 897,003, abandoned.
     CODEN: USXXAM
DT
     Patent
     English
LΑ
     ICM A01N043-04
IC
     ICS A61K031-715; C07H015-00; C07G003-00
NCL
     424535000
     1-12 (Pharmacology)
     Section cross-reference(s): 63
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                           APPLICATION NO. DATE
                                           -----
                      Α
     US 5478579
                           19951226
                                          US 1993-95738
                                                            19930721 <--
PRAI US 1991-651189 19910206 <--
     US 1992-897003 19920601 <--
     A method for orally inducing and enhancing the absorption of calcium into
AB
     mammalian bone tissue comprises the administration of an ED of a flavonol
     aglycon glycoside in combination with nutritional calcium.
     Various herbal sources are included. Potassium gluconate may be added to
     the system as an adjuvant.
ST
     flavonol aglycon glycoside calcium osteoporosis; pharmaceutical flavonol
     aglycon glycoside calcium osteoporosis
IT
     Anserinae
     Arnica montana
     Bone
     Equisetum arvense
     Osteoporosis
     Pharmaceutical dosage forms
     Prunus spinosa
     Rhododendron ferrugineum
     Viola tricolor
        (flavonol aglycon glycoside in combination with nutritional
        calcium for treatment of osteoporosis)
IT
     Aglycons
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (flavonol aglycon glycoside in combination with nutritional
        calcium for treatment of osteoporosis)
IT
     Primrose
        (Primula elatior, flavonol aglycon glycoside in combination
        with nutritional calcium for treatment of osteoporosis)
IT
        (Sambucus nigra, flavonol aglycon glycoside in combination
        with nutritional calcium for treatment of osteoporosis)
ΙT
     Linden
        (Tilia cordata, flavonol aglycon glycoside in combination
        with nutritional calcium for treatment of osteoporosis)
IT
     Glycosides
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (flavonoid, flavonol aglycon glycoside in combination with
        nutritional calcium for treatment of osteoporosis)
IT
     Pharmaceutical dosage forms
        (tablets, flavonol aglycon glycoside in combination with
        nutritional calcium for treatment of osteoporosis)
IT
     7440-70-2, Calcium, biological studies
```

RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(flavonol aglycon glycoside in **combination** with nutritional calcium for treatment of osteoporosis)

IT 21637-25-2, Isoquercitrin

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonol aglycon glycoside in **combination** with nutritional calcium for treatment of osteoporosis)

IT 117-39-5, Quercetin 299-27-4, Potassium gluconate

480-19-3, Isorhamnetin 520-18-3, Kaempferol

529-44-2, Myricetin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (flavonol aglycon glycoside in combination with nutritional calcium for treatment of osteoporosis)

L116 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2000 ACS

AN 1995:498417 HCAPLUS

DN 122:265924

TI Preparation of quercetin 3-O-glycosides and method for modification of water-sparingly soluble flavonoid using the glycosides

IN Washino, Ken; Iwata, Mitsuhiro

PA Saneigen Efu Efu Ai Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07H017-07

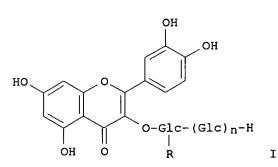
CC 33-3 (Carbohydrates)

Section cross-reference(s): 26, 62, 63

FAN.CNT 1

PI GI

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
	JP 07010898	A2	19950113	JP 1993-180942	19930624 <			



Quercetin 3-O-glycosides (I; Glc = glucose; n.gtoreq.1 integer) are AΒ obtained by glycosidation of quercetin 3-monoglucoside and/or rutin in the presence of glucosidase or transglucosidase. A water-sparingly sol. flavonoid (e.g. rutin, quercetin, isoquercitrin, morin, myricitrin, and myricetin) is modified to improve the soly. by drying a soln. contg. a water-sparingly sol. flavonoid and 1 or .gtoreq.2 of the quercetin 3-O-glycosides I. The said soln. is obtained by dissolving a solid water-sparingly flavonoid in a soln. of 1 or 2 of the quercetin 3-O-glycosides in 1 or .gtoreq.2 solvents selected from C1-4 aliph. alcs., an ag. medium, and water. This modification markedly improves the soly. of a water-sparingly flavonoid without changing the structure and effectiveness of the flavonoid which is useful as a discoloration inhibitor, an inhibitor of flavor change, and an antioxidant for foods, a UV-absorbing agent for cosmetics, and a plant growth regulator in agriculture. Thus, 500 g rutin was suspended in 100 L H2O and 100 g naringinase was added followed by heating the mixt. (pH 7) at



50.degree. for 5 h, concg. the reaction mixt. to 50 L, cooling the conc., and filtering the pptd. quercetin 3-0-glycosides. Water (100 L) was added to the glycosides and then 800 g corn starch was added followed by homogenizing the mixt., adding 200 mL cyclodextrin glucanotransferase (CGTase), and heating the resulting mixt. at 55.degree. and pH 6.8 for 12 h. The reaction soln. was passed to an adsorption column (Diaion HP-21) to adsorb the quercetin 3-0-glycoside and the column was eluted with 50% (vol/vol) aq. MeOH to give, after concn. to dryness, 550 g solid contg. quercetin 3-O-glycoside I (R = H; n = 1, 2, 3, 4, 5, 6, 7, .gtoreq.8) in 23, 17, 12, 9, 7, 4, 2, and 2 mol%, resp. an example of the flavonoid modification, 100 g rutin and the latter glycoside (15 g) were suspended in hot water 1.5 L (80.degree.) and 8.5 g NaOH flakes were added portionwise to give a homogeneous soln. which was made pH 6.5 by adding 20 wt.% H2SO4. The soln. was spray-dried to give a yellow solid (100 g) which (5 g) was immediately dissolved to give a clear soln. when 100 mL water was added and stirred at 20.degree. for 1 h. For comparison, when a mixt. of 4.3 g rutin and the glycoside 0.7 g was added to 100 mL water and stirred at 20.degree. for 1 h, it did not become a homogeneous clear soln. and 4.2 g rutin was recovered by filtering the suspension. quercetin glycoside prepn; water sparingly soluble flavonoid solubilization Flavonoids RL: PEP (Physical, engineering or chemical process); PROC (Process) (prepn. of quercetin 3-0-glycosides and modification and water-solubilization of water-sparingly sol. flavonoids) 9030-09-5, Cyclodextrin glucanotransferase RL: CAT (Catalyst use); USES (Uses) (catalyst enzymic transglycosidation of starch with quercetin glucoside in prepn. of quercetin 3-0-glucosides) 9005-25-8, Starch, reactions RL: RCT (Reactant) (corn; enzymic transglycosidation with quercetin glucoside in prepn. of quercetin 3-0-glucosides) 9068-31-9, Naringinase RL: CAT (Catalyst use); USES (Uses) (enzymic hydrolysis by naringinase in prepn. of quercetin 3-0-glucosides) 153-18-4, Rutin RL: RCT (Reactant) (enzymic hydrolysis by naringinase in prepn. of quercetin 3-0-glucosides) 482-35-9P RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation) (prepn. and enzymic transglycosidation with starch in prepn. of quercetin 3-0-glucosides) 27459-71-8P 27859-61-6P 162342-36-1P 162381-35-3P 162381-36-4P 162381-37-5P 162393-05-7P 162429-62-1P RL: BPN (Biosynthetic preparation); MOA (Modifier or additive use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of quercetin 3-0-glycosides and modification and water-solubilization of water-sparingly sol. flavonoids) 480-16-0, Morin **529-44-2**, **117-39-5**, Quercetin 17912-87-7, Myricitrin 21637-25-2, Isoquercitrin Myricetin RL: PEP (Physical, engineering or chemical process); PROC (Process) (water-solubilization with quercetin glucosides) L116 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2000 ACS 1995:341162 HCAPLUS 122:142563 Pharmaceutical compositions containing flavonoids as chondroprotective agents Watanabe, Koju; Niimura, Koichi; Umekawa, Kiyonori Kureha Chemical Industry Co., Ltd., Japan Eur. Pat. Appl., 10 pp.

ST

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TΙ

IN PΑ

SO

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CODEN: EPXXDW
DT
     Patent
     English
LА
IC ·
     ICM A61K031-365
     ICS A61K031-70
     63-6 (Pharmaceuticals)
     Section cross-reference(s): 1
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
PΙ
     EP 633022
                    A2
                           19950111
                                          EP 1994-109872 19940627 <--
     EP 633022
                     A3 19950802
     EP 633022
                     B1 19970219
        R: CH, DE, FR, GB, IT, LI, SE
     JP 07025761
                     A2 19950127
                                          JP 1993-194182
                                                           19930709 <--
     CA 2126513
                     AA
                           19950110
                                          CA 1994-2126513 19940622 <--
                          19960703
     EP 719554
                     A1
                                          EP 1996-103715
                                                           19940627 <--
        R: CH, DE, FR, GB, IT, LI, SE
     AU 94673<u>39</u>
                     A1
                           19950119
                                          AU 1994-67339
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                           19950518
     AU 659579
     CM 1100633
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    lus 5650433
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                           19970722
                                          US 1995-519179
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PRAI JP 1993-194182 19930709 <--
     EP 1994-109872
                    19940627 <--
     บร 1994-2ก์1951
                     19940708 <---
OS
    MARPAT 122:142563
AB
     Pharmaceutical compns. contg. flavonoids as chondroprotective
     agents are prepd. The above compds. strongly inhibit proteoglycan
     depletion from the chondrocyte matrix and exhibit a function to protect
     cartilage, and thus, are extremely effective for the treatment of
     arthropathy. The amt. of glycosaminoglycans (major constituent of
     proteoglycans) in cultured chondrocytes in presence of 0.1.mu.g/mL phorbol
     myristate acetate and 100 .mu.M apigenin (I) was 33.3 as compared with
     16.5 .mu.g/mL for controls contg. no I. Pharmaceutical granules contained
     I 20, lactose 68, and hydroxypropyl cellulose 12 parts.
     pharmaceutical compn flavonoid chondroprotective agent; apigenin
ST
     pharmaceutical granule proteoglycan chondrocyte protection
IT
     Chondrocyte
        (pharmaceutical compns. contg. flavonoids as
        chondroprotective agents)
ΙT
     Flavonoids
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compns. contg. flavonoids as
        chondroprotective agents)
     Proteoglycans, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (pharmaceutical compns. contg. flavonoids as
        chondroprotective agents)
IT
     Glycosides
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (flavonoid, hydroxy methoxy oxo, pharmaceutical compns.
        contg. flavonoids as chondroprotective agents)
ΙT
     Glycosides
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (flavonoid, hydroxy oxo, pharmaceutical compns. contg.
        flavonoids as chondroprotective agents)
     Glycosides
ΙT
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (flavonoid, oxo, pharmaceutical compns. contg. flavonoids as
        chondroprotective agents)
     Pharmaceutical dosage forms
ΙT
        (granules, pharmaceutical compns. contg. flavonoids as
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```
chondroprotective agents)
ΙT
     50-99-7D, GLucose, compds. with flavonoids 57-48-7D, Fructose, compds.
                     58-86-6D, Xylose, compds. with flavonoids
     with flavonoids
                                                                 59-23-4D,
     Galactose, compds. with flavonoids 90-18-6, Quercetagetin
     Rhamnetin 90-74-4D, Rutinose, compds. with flavonoids 117-39-5
     , Quercetin 147-81-9D, Arabinose, compds. with flavonoids
     153-18-4, Rutin 301-19-9, Robinin 480-10-4, Astragalin
     480-15-9, Datiscetin 480-16-0, Morin 480-18-2, Taxifolin
     480-19-3, Isorhamnetin 480-20-6, Aromadendrin 480-35-3,
                                     480-39-7, Pinocembrin 480-40-0,
     Eriodictin
                 480-36-4, Linarin
              480-41-1, Naringenin 480-44-4, Acacetin
                                                      482-38-2,
     Chrysin
     Kaempferitrin
                    491-67-8, Baicalein 491-70-3, Luteolin
                           520-26-3
                                     520-27-4, Diosmin
     520-18-3, Kaempferol
               520-34-3, Diosmetin 520-36-5, Apigenin
     520-33-2
     522-12-3, Quercitrin 525-82-6, Flavone 528-48-3, Fisetin
     529-39-5, Sakuranin 529-44-2, Myricetin
                                              529-55-5, Prunin
     548-58-3, Primetin 548-75-4, Quercetagitrin 548-82-3, Pinobanksin
     552-58-9, Eriodictyol 552-74-9D, Robinobiose, compds. with
     flavonoids 572-31-6, Engelitin 578-74-5, Cosmosiin 1329-10-8,
     Toringin 2957-21-3, Sakuranetin 3615-41-6D, Rhamnose, compds. with
     flavonoids 5373-11-5, Glucoluteolin 10236-47-2, Naringin 17912-87-7,
    Myricitrin 20344-46-1, Galuteolin 20725-03-5, Fustin
     21637-25-2, Isoquercitrin 23627-87-4, Trifolin 26544-34-3,
                                    28757-27-9, Salipurpin
            27200-12-0, Ampelopsin
                                                            29838-67-3,
               139759-42-5D, compds. with flavonoids
    Astilbin
    RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (pharmaceutical compns. contg. flavonoids as
        chondroprotective agents)
L116 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1995:79154 HCAPLUS
AN
DN
     122:142085
ΤI
    Dentifrices containing flavones
IN
    Okada, Toshimochi; Yamazaki, Yoji
    Lion Corp., Japan
PA
    Jpn. Kokai Tokkyo Koho, 6 pp.
SO
    CODEN: JKXXAF
DT
    Patent
LΑ
     Japanese
     ICM A61K007-16
IC
     62-7 (Essential Oils and Cosmetics)
CC
FAN.CNT 1
                  KIND DATE
                                         APPLICATION NO. DATE
     PATENT NO.
                     ____
                                         _____
     JP 06183940 A2 19940705
                                         JP 1992-356340 19921221 <--
PΙ
     Dentifrices comprise a collagenase-inhibiting flavone deriv. selected from
AB
     isoquercitrin, miricitrin, and isorhamnetin for treatment and prevention
     of periodontal diseases. Dentifrices contg. the flavones are
     formulated.
     dentifrice flavone deriv collagenase inhibitor; isoquercitrin dentifrice;
ST
     miricitrin dentifrice; isorhamnetin dentifrice
    Dentifrices
IT
        (dentifrices contg. flavones)
IT
     Periodontium
        (disease, dentifrices contg. flavones)
     480-19-3, Isorhamnetin 21637-25-2, Isoquercitrin
IT
     88232-62-6, Miricitrin
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (dentifrices contg. flavones)
     9001-12-1, Collagenase
TT
     RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
        (inhibitors; dentifrices contg. flavones)
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sharareh - 09 / 349713
AN
     1994:504071 HCAPLUS
     121:104071
DN
     Chemical study on the phenolic compounds from Gleditsia japonica
ΤI
     Hwang, Yoon Jeong; Lee, Seung Ho; Ryu, Shi Yong; Ahn, Jong Woong; Kim, Eun
ΑU
     Joo; Ro, Jai Seup; Lee, Kyong Soon
CS
     Dep. Pharm., Chung Buk Natl. Univ., Cheongju, 360-763, S. Koreá
SO
     Saengyak Hakhoechi (1994), 25(1), 11-19
     CODEN: SYHJAM; ISSN: 0253-3073
DT
     Journal
     Korean
LΑ
     11-1 (Plant Biochemistry)
CC
     Section cross-reference(s): 63
     Gleditsia japonica var. koraiensis (Leguminosae) is commonly distributed
AΒ
     in Korea and has been used as a folk medicine in the treatment of
     bronchitis, neoplasm and blennorrhagia in the Orient. The aq. acetone
     ext. of the leaves of G. japonica was subjected to a combination
     of Sephadex LH-20, Cosmosil 75C18-OPN, TSK-gel Toyopearl HW 40F, Avicel
     cellulose, and MCI-gel CHP 20P chromatogs. with various solvent systems.
     Twelve compds. were isolated and confirmed to be vitexin, isovitexin,
     orientin, isoorientin, 4-caffeoylquinic acid, 5-caffeoyl quinic acid,
     3,5-dicaffeoyl quinic acid, 4,5-dicaffeoyl quinic acid, caffeic acid,
     quercetin, isoquercitrin and luteolin-7-0-glucoside, on the basis of chem.
     and spectroscopic evidences.
ST
     phenolic compd Gleditsia
     Phenols, biological studies
ΙT
     RL: BIOL (Biological study)
        (from Gleditsia japonica koraiensis)
IT
     Honey locust
        (G. japonica koraiensis, phenolic compds. from)
                         331-39-5, Caffeic acid
                                                    905-99-7,
ΙT
     117-39-5, Quercetin
     4-Caffeoylquinic acid 906-33-2, 5-Caffeoyl quinic acid
                                                                2450-53-5,
                                  3681-93-4, Vitexin
                                                       4261-42-1, Isoorientin
     3,5-Dicaffeoyl quinic acid
     5373-11-5, Luteolin-7-0-glucoside 21637-25-2, Isoquercitrin
                          38953-85-4, Isovitexin 57378-72-0, 4,5-Dicaffeoyl
     28608-75-5, Orientin
     quinic acid
     RL: BIOL (Biological study)
        (from Gleditsia japonica koraiensis)
L116 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1994:473085 HCAPLUS
AΝ
DN
     121:73085
     Inhibitory effects of plant polyphenols on rat liver glutathione
ΤI
     S-transferases
     Zhang, Kai; Das, Nagaratnam P.
AU
     Fac. Med., National Univ. Singapore, Singapore, 0511, Singapore
CS
     Biochem. Pharmacol. (1994), 47(11), 2063-8
SO
     CODEN: BCPCA6; ISSN: 0006-2952
DT
     Journal
     English
LA:
CC
     1-3 (Pharmacology)
     Several novel naturally occurring flavonoids and other polyphenols exerted
AΒ
     varying degrees of concn.-dependent inhibition on uncharacterized rat
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Several novel naturally occurring flavonoids and other polyphenols exerted varying degrees of concn.-dependent inhibition on uncharacterized rat liver glutathione S-transferase (EC 2.5.1.18, GST) isoforms. The order of inhibitory potencies of the five most potent polyphenols was tannic acid >2-hydroxy chalcone > butein > morin >quercetin, and their IC50 values were 1.044, 6.758, 9.033, 13,710 and 18.732 .mu.M, resp. Their inhibitions were reversible, as indicated by dialysis expts. The optimum pH for the inhibitions by four of the compds. (tannic acid, butein, 2-hydroxyl chalcone and morin) was in the range of pH 6.0 to 6.5, but for quercetin the optimum pH was 8.0. These potent inhibitors possess one or more of the following chem. structural features: (a) polyhydroxylation substitutions, (b) absence of a sugar moiety, (c) for the chalcones, the presence of an open C-ring and hydroxylation at either the C-2 or C-3 position, (d) for the flavonoids, the attachment of the B-ring to C-2, and (e) a double bond between C-2 and C-3. Butein exhibited a non-competitive inhibition toward both glutathione (GSH) and 1-chloro-2,4-dinitrobenzene

(CDNB). Interestingly, tannic acid showed a non-competitive inhibition toward CDNB but a competitive inhibition toward GSH. The inhibitory potency of tannic acid on rat liver GSTs was concn.- and substrate-dependent. Using CDNB, p-nitrobenzyl chloride, 4-nitropyridine-N-oxide, and ethacrynic acid as substrates, the IC50 values for tannic acid were 1.044, 11.151, 20.206, and 57.664 .mu.M, resp. polyphenol liver glutathione transferase inhibition structure; flavonoid ST liver glutathione transferase inhibition structure; plant polyphenol liver glutathione transferase inhibition Liver, composition IT (glutathione transferase of, by plant polyphenols inhibition of, structure in relation to) IT Tannins RL: BIOL (Biological study) (liver glutathione S-transferase inhibition by, structure in relation TΨ Flavonoids RL: BIOL (Biological study) (liver glutathione transferase inhibition by, structure in relation to) Molecular structure-biological activity relationship IT (glutathione transferase-inhibiting, of plant polyphenols) Phenols, biological studies TΨ RL: BIOL (Biological study) (polyhydric, plant, liver glutathione transferase inhibition by, structure in relation to) 60-81-1, Phloridzin 60-82-2, Phloretin IΤ 58-54-8, Ethacrynic acid 94-41-7, Chalcone 117-39-5, Quercetin 91-64-5, Coumarin 153-18-4, Rutin 154-23-4, Catechin 476-66-4, Ellagic 480-16-0, Morin **480-19-3**, Isorhamnetin 480-41-1, 487-52-5, 486-66-8, Daidzein Naringenin 480-44-4, Acacetin 491-80-5, Biochanin A 520-27-4, Diosmin 520-34-3, Diosmetin Butein 520-36-5, Apigenin 522-12-3, Quercitrin 529-44-2 Myricetin 644-78-0, 2-Hydroxychalcone 10236-47-2, Naringin 17912-87-7, Myricitrin **21637-25-2**, Isoquercitrin 26544-34-3, Apiin RL: BIOL (Biological study) (liver glutathione S-transferase inhibition by, structure in relation IT 50812-37-8, Glutathione S-transferase RL: BIOL (Biological study) (liver, by plant polyphenols inhibition of, structure in relation to) L116 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2000 ACS 1993:513391 HCAPLUS ΑN DN 119:113391 Agrimony: Comparative study on Agrimonia eupatoria L. and Agrimonia TI procera Wallr false (ii) Carnat, A.; Lamaison, J. L.; Petitjean-Freytet, C. ΑIJ Fac. Pharm., Univ. Auvergne, Clermont-Ferrand, F 63000, Fr. CS Plant. Med. Phytother. (1991), 25(4), 202-11 SO CODEN: PLMPA9; ISSN: 0032-0994 DТ Journal French LΑ CC 11-1 (Plant Biochemistry) Section cross-reference(s): 63 AΒ Dried flowering tops of Agrimonia eupatoria and A. procera were distinguished by their botanical characters and by their chem. The levels of principal constituents av., resp.: tannins 7.4 and 9.5, total flavonoids 0.90 and 0.72, rutin 0.17 and 0.16, hyperoside 0.37 and 0.18, isoquercitrin 0.21 and 0.13, quercitrin 0.05 and 0, and ash 7.3 and 6.5%. Data are compared with those for 11 com. lots of agrimony. The possibility of substituting A. procera flowering tops for those of A. eupatoria, accepted in the French Pharmacopeia, is discussed.

agrimony flavonoid tannin mineral element

ST

IΤ

Flavonoids

Mineral elements

Tannins RL: BIOL (Biological study) (of Agrimonia eupatoria and A. procera) ΙT RL: BIOL (Biological study) (flavonoid, of Agrimonia eupatoria and A. procera) ΙT Agrimony (A. eupatoria, botanical characteristics and chem. compn. of) IT Agrimony (A. procera, botanical characteristics and chem. compn. of) ΙT **153-18-4** 482-36-0, Hyperoside **522-12-3** 578-74-5 5373-11-5, Luteolin 7-glucoside 21637-25-2, Isoquercitrin RL: BIOL (Biological study) (of Agrimonia eupatoria and A. procera) L116 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2000 ACS ΑN 1993:183102 HCAPLUS DN 118:183102 Effects of extracts of Zanthoxylum fruit and their constituents on TΙ spontaneous beating rate of myocardial cell sheets in culture Huang, Xin Li; Kakiuchi, Nobuko; Che, Qing Ming; Huang, Sheng Lun; ΑU Hattori, Masao; Namba, Tsuneo Res. Inst. Wakan-Yaku, Toyama Med. Pharm. Univ., Toyama, 930-01, Japan CS Phytother. Res. (1993), 7(1), 41-8 SO CODEN: PHYREH; ISSN: 0951-418X DTJournal LА English CC 1-8 (Pharmacology) In the course of our studies on naturally occurring cardioactive agents, AB we investigated the effects of water and methanol exts. of a Chinese crude drug Huajiao (the dried fruit of Zanthoxylum bungeanum) on the spontaneous beating rate (BR) of embryonic mouse myocardial cell sheets in culture. Both exts. significantly increased the BR. Through bioassay directed fractionation of the exts., hydroxy-.beta.-sanshool, xanthoxylin and two quercetin glycosides, hyperin and quercitrin, were found to increase the BR in a std. medium (2.1 mM Ca2+). In a low Ca2+ medium (0.5 mM Ca2+), these compds. suppressed the decrease of BR, which was induced by low Ca2+. Of 16 flavonoids related in structure to hyperin (4) and quercitrin (6), quercetin, isoquercitrin, rutin, myricetin and myricitrin also increased the BR in the std. medium, while kaempferol and luteorin decreased the BR in the std. medium. When compared with control, hydroxy-.beta.-sanshool and xanthoxylin stimulated 13-15 fold calcium uptake of the cultured myocardial cells, which might have caused the pos. chronotropic effect. Hyperin and quercitrin did not affect calcium uptake of the myocardial cells, Na+-K+ ATPase activity or Ca2+-ATPase activity of sarcoplasmic reticulum. cardiotonic flavonoid structure Zanthoxylum fruit; Huajiao cardiotonic ST flavonoid structure Heart, composition IT (ATPase activity of and calcium uptake by, flavonoids from Zanthoxylum fruit effects on) Zanthoxylum bungei IT (flavonoids from fruit of, pos. chronotropic effect of, in heart, structure in relation to) IT Pharmaceutical natural products RL: BIOL (Biological study) (Huajiao, flavonoids from, pos. chronotropic effect of, in heart, structure in relation to) Molecular structure-biological activity relationship IΤ (cardiotonic, of flavonoids from Zanthoxylum fruit) IT Cardiotonics (chronotropics, flavonoids from Zanthoxylum fruit, structure in relation to) Molecular structure-biological activity relationship IT

(heart rate-affecting, of flavonoids from Zanthoxylum fruit)

IT

Flavonoids

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RL: BAC (Biological activity or effector, except adverse); BIOL
     (Biological study)
        (hydroxy methoxy, from Zanthoxylum fruit, pos. chronotropic effects of,
        in heart)
     90-19-7, Rhamnetin 117-39-5, Quercetin 153-18-4, Rutin
TΨ
     480-16-0, Morin
                      491-54-3, Kaempferide 491-70-3, Luteolin
                            528-48-3, Fisetin
     520-18-3, Kaempferol
                                                529-40-8, Ombuin
                                                603-61-2,
     529-44-2, Myricetin 552-58-9, Eriodictyol
                   630-60-4, Ouabain 5373-11-5, Luteolin 7-glucoside
     Tamarixetin
     17912-87-7, Myricitrin 21637-25-2, Isoquercitrin
                                                        23284-18-6,
     Peltatoside
     RL: PRP (Properties)
        (chronotropic effects of, in heart)
     7440-70-2, Calcium, biological studies
ΙT
     RL: BIOL (Biological study)
        (flavonoids from Zanthoxylum fruit effect on uptake of, by heart
        myocytes, structure and mechanism of cardiotonic effects in relation
     90-24-4, Xanthoxylin
                            482-36-0, Hyperin 522-12-3, Quercitrin
IT
                                  4324-53-2, Mikanin
                                                       10076-00-3D, hydroxy
     645-08-9, Isovanillic acid
                           97465-69-5
               83883-10-7
     derivs.
     RL: BAC (Biological activity or effector, except adverse); BIOL
     (Biological study)
        (from Zanthoxylum fruit, pos. chronotropic effects of, structure in
        relation to)
IT
     9000-83-3, ATPase
     RL: BIOL (Biological study)
        (sodium-potassium and calcium, flavonoids from Zanthoxylum fruit
        effects on, in heart sarcoplasmic reticulum, structure and mechanism of
        cardiotonic effects in relation to)
L116 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1992:619828 HCAPLUS
ΑN
DN
     117:219828
     A study on chemical composition of Saururaceae growing in Korea.
TI
     4. On flavonoid constituents of Houttuynia cordata
     Choe, Koang Hoon; Kwon, Shoon Ja; Jung, Duk Sang
ΑU
     Cent. Res. Inst., Yungjin Pharm. Co., Namyang, 445-850, S. Korea
CS
     Anal. Sci. Technol. (1991), 4(3), 285-8
SO
     CODEN: ASCTET
DT
     Journal
LА
     Korean
     63-4 (Pharmaceuticals)
CC
     Section cross-reference(s): 11
     Four flavonoids, quercitrin, rutin, hyperin and isoquercitrin, were
AΒ
     isolated from the aerial parts of H. cordata growing in Korea, and
     identified by the comparison of their TLC, GC and HPLC chromatogram with
     those of pure authentic compds.; reynoutrin and afzerin reported were not
     detected.
ST
     flavonoid Houttuynia
ΙT
     Houttuynia cordata
        (flavonoids of)
ΙT
     Flavonoids
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Houttuynia cordata)
                       482-36-0, Hyperin 522-12-3, Quercitrin
IT
     153-18-4, Rutin
     21637-25-2, Isoquercitrin
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Houttuynia cordata)
L116 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1992:148182 HCAPLUS
AN
DN
     116:148182
     Study on the chemical composition of flavonoids and terpenes in
TI
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Liquidambar
     Chen, Youdi; Hu, Zhidong; Gu, Yin
ΑU
     Res. Inst. Chem. Process. Util. For. Prod., Chin. Acad. For., Nanjing,
CS
     210037, Peop. Rep. China
     Linchan Huaxue Yu Gongye (1991), 11(2), 157-64
SO
     CODEN: LHYGD7; ISSN: 0253-2417
DT
     Journal
LA
     Chinese
CC
     11-1 (Plant Biochemistry)
     Section cross-reference(s): 26, 30, 62
     Flavonoids were identified from the leaves and terpenes from the branch
AΒ
     essential oil of Liquidambar species by HPLC, gas chromatog., and mass
     spectrometry. The pattern of these compds. may assist the the study of
     the taxonomy and relatedness of the species. Thus, L. styraciflua was
     closely related to L. formosana, whereas the relationship between L.
     formosana and L. orientalis was more distant.
     Liquidambar flavonoid terpene taxonomy
ST
                                                                        alse hul
ΙT
     Liquidambar
     Liquidambar acalycina
     Liquidambar formosana
     Liquidambar formosana monticola
     Liquidambar orientalis
     Liquidambar styraciflua
        (flavonoids and terpenes of, taxonomy in relation to)
ΙT
     Taxonomy
        (of Liquidambar species, flavonoids and terpenes in relation to)
ΙT
     Flavonoids
     Terpenes and Terpenoids, biological studies
     RL: BIOL (Biological study)
        (of Liquidambar species, taxonomy in relation to)
IT
     Essential oils
     RL: BIOL (Biological study)
        (Liquidambar formosana terminal branch, terpenes of, taxonomy in
        relation to)
ΙT
     76-49-3, Bornyl acetate 80-56-8, .alpha.-Pinene
                                                         87 - 44 - 5,
     trans-Caryophyllene 98-55-5, .alpha.-Terpineol
                                                        99-83-2,
                          99-85-4, .gamma.-Terpinene
                                                         99-86-5,
     .alpha.-Phellandrene
     .alpha.-Terpinene 118-65-0, cis-Caryophyllene
                                                       127-91-3, .beta.-Pinene
     138-86-3, Limonene 153-18-4, Rutin 480-10-4, Astragalin
                                  539-52-6, Perillene
                                                        548-04-9
                                                                   555-10-2,
     483-76-1, .DELTA.-Cadinene
                                                            3856-25-5, Copaene
     .beta.-Phellandrene
                           562-74-3 586-63-0
                                                673-84-7
                           13466-78-9, .DELTA.3-Carene
                                                        13744-15-5,
     6753-98-6, Humulene
     .beta.-Cubebene 16728-99-7, Naphthalene, 1,2,3,4,4a,7-hexahydro-1,6-
                                   17066-67-0, .beta.-Selinene
                                                                 20307-84-0,
     dimethyl-4-(1-methylethyl)-
     .DELTA.-Elemene 21637-25-2, Isoquercitrin
                                                 21902-26-1
     25246-27-9, Alloaromadendrene 30021-74-0, .gamma.-Muurolene
     33880-83-0, .beta.-Elemene
                                  56701-52-1
                                               139767-48-9
     RL: BIOL (Biological study)
        (of Liquidambar species, taxonomy in relation to)
L116 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1991:639442 HCAPLUS
ΑN
DN
     115:239442
     Flavonoids and hydroxycinnamic acid derivatives in Sambucus nigra L.
ΤI
     Petitjean-Freytet, C.; Carnat, A.; Lamaison, J. L.
ΑU
     Lab. Pharmacog. Phytother., Univ. Auvergne, Clermont-Ferrand, F-63000, Fr.
CS
     J. Pharm. Belg. (1991), 46(4), 241-6
SO
     CODEN: JPBEAJ; ISSN: 0047-2166
DT
     Journal
LΑ
     French
CC
     63-4 (Pharmaceuticals)
     Section cross-reference(s): 11
     The total flavonoid content of S. nigra flowers was .apprx.3.5%, and the
AΒ
```

amt. of hydroxycinnamic acid derivs. was .apprx.5.1%. The major

components were rutin (.apprx.2.5%) and chlorogenic acid (.apprx.2.6%).

```
Other constituents were isoquercitrin, isorhamnetin 3-rutinoside, and
     isorhamnetin 3-glucoside.
                                The flavonoid compn. remained const.
     throughout the flowering season.
ST
     Sambucus flavonoid hydroxycinnamate deriv; chlorogenic acid Sambucus;
     rutin Sambucus; cinnamate hydroxy Sambucus
TΤ
     Flavonoids
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Sambucus nigra flowers)
IT
        (S. nigra, flvonoids and hydroxycinnamte derivs. of flowers of)
IT
     153-18-4, Rutin
                       327-97-9
                                  604-80-8
                                             5041-82-7
     21637-25-2, Isoquercitrin 25429-38-3D, derivs.
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Sambucus nigra flowers)
L116 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2000 ACS
ΑN
     1991:566373 HCAPLUS
DN
     115:166373
TI
     Hair growth stimulants containing quercetin and/or its glycosides
     Fujisaki, Yukio; Mizumaki, Katsumi; Watanabe, Megumi
IN
     Arusofa Sogo Kenkyusho K. K., Japan
PA
SO
     Jpn. Kokai Tokkyo Koho, 4 pp.
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
IC
     ICM A61K007-06
CC
     62-3 (Essential Oils and Cosmetics)
FAN.CNT 1
                      KIND DATE
     PATENT NO.
                                           APPLICATION NO. DATE
                            19910403
     JP 03077809
                      A2
                                           JP 1989-214705
PΙ
                                                             19890821 <--
     Hair growth stimulants contain quercetin and/or its glycosides.
AB
     0.1, hinokitiol 0.05, vitamin E acetate 0.05, Me2CHOH 15.00, EtOH 40.00,
     polyoxyethylene hydrogenated castor oil 0.50, NaOH 0.03, and perfume 0.20
     g were mixed with H20 to give 100 mL hair tonic prepn. The
     prepn. greatly enhanced hair growth in mice and human.
     quercetin glycoside hair growth stimulant
ST
IT
    Alopecia
        (treatment of, hair prepns. contg. quercetin and/or its glycosides for)
IT
     Hair preparations
        (growth stimulants, contg. quercetin and/or its glycosides)
ΙT
     Glycosides
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses,
        (quercetin, hair growth stimulants contg.)
     117-39-5, Quercetin 153-18-4, Rutin 482-36-0, Hyperin
IT
     491-50-9, Quercimeritrin 522-12-3, Quercitrin 21637-25-2
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (hair growth stimulants contg.)
L116 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1990:617758 HCAPLUS
ИA
DN
     113:217758
     Procedures for extraction of active components from medicinal plants.
ΤI
     Extraction of some phenolic components from hawthorn and linden with
     water-alcohol and water-glycol mixtures containing variable
     amounts of water
ΑU
     Teglia, A.; Melchiorri, M.
     Ist. Angelica, Bologna, Italy
CS
     Cosmet. Toiletries, Ed. Ital. (1989), 10(6), 15-37
SO
     CODEN: CTEIEZ
```

DT

LА

CC

Journal

Italian

62-1 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

```
AB
     Various H2O-EtOH and H2O-1, 2-propylene glycol mixts. were used
     to ext. chlorogenic acid, vitexin 4'-rhamnoside, and hyperoside from
     hawthorn leaves and flowers and quercitrin and isoquercitrin from linden
     flowers and tracts. Data are given on the extn. yield with respect to the
     polarity and hydrophilic/lipophilic balance of the extn. mixt.
     Medium to high amts. of H2O were required to obtain the max. solubilizing
     and permeabilizing properties of the H2O-EtOH mixts., whereas
     low percentages of H2O were sufficient with the H2O-glycol mixts
     phenol extn linden hawthorn; propylene glycol extn medicinal plant;
ST
     ethanol extn medicinal plant
     Flavonoids
IT
     Phenols, preparation RL: PROC (Process)
        (extn. of, from hawthorn with water-alc. and water-propylene glycol)
IT
     Hydrophilicity
     Lipophilicity
        (phenols extn. from plants in relation to)
IT
     Linden
        (T. cordata, phenols extn. from, with water-alc. and water-propylene
        glycol)
ΙT
     Hawthorn
        (C. oxyacantha, phenols extn. from, with water-alc. and water-propylene
        glycol)
ΙT
     327-97-9, Chlorogenic acid
                                   482-36-0, Hyperoside 522-12-3,
     Quercitrin 21637-25-2, Isoquercitrin
                                             32426-34-9, Vitexin
     4'-rhamnoside
     RL: PROC (Process)
        (extn. of, from hawthorn with water-alc. and water-propylene glycol)
IT
     7732-18-5
     RL: BIOL (Biological study)
        (hydrophilicity, phenols extn. from plants in relation to)
     57-55-6, 1,2-Propanediol, uses and miscellaneous 64-17-5, Ethanol, uses
IT
     and miscellaneous
     RL: USES (Uses)
        (phenols extn. from hawthorn and linden with)
L116 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1988:615829 HCAPLUS
AN
DN
     109:215829
     Polyphenolic constituents of flowers of Tilia tomentosa Moench
ΤI
ΑU
     Tzakou, O.; Skaltsa, H.; Philianos, S.
     Lab. Pharm., Univ. Athenes, Athens, GR - 106 80, Greece Plant. Med. Phytother. (1987), 21(4), 305-10
CS
SO
     CODEN: PLMPA9; ISSN: 0032-0994
DT
     Journal
LΑ
     French
CC
     63-4 (Pharmaceuticals)
     Section cross-reference(s): 11
     Quercetin, kaempferol, hyperoside, isoquercitrin, astragalin, caffeic
AB
     acid, chlorogenic acid and aesculin were isolated and identified in a
     decoction of the flowers and leaves of T. tomentosa.
ST
     Tilia decoction polyphenol compn
ΙT
     Flavonoids
     RL: BIOL (Biological study)
        (of Tilia tomentosa decoction)
IT
     Phenols, biological studies
     RL: BIOL (Biological study)
        (polyhydric, of Tilia tomentosa decoction)
TT
     Linden
        (T. tomentosa, polyphenols in decoction of)
                           327-97-9, Chlorogenic acid
                                                          331-39-5,
TΨ
     117-39-5, Quercetin
                    480-10-4, Astragalin
                                             482-36-0, Hyperoside
     Caffeic acid
                           531-75-9, Aesculin 21637-25-2,
     520-18-3, Kaempferol
     Isoquercitrin
     RL: BIOL (Biological study)
```

(of Tilia tomentosa decoction)

IT

```
L116 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1988:156489 HCAPLUS
ΑN
DN
     108:156489
ΤI
     Metal halide modification of plant extracts from zygophyllaceae
IN
     Jordan, Russell T.
     Chemex Pharmaceuticals, Inc., USA
PA
     PCT Int. Appl., 41 pp.
SO
     CODEN: PIXXD2
     Patent
DT
     English
LΆ
IC
     ICM A61K033-24
     ICS A61K033-34; A61K033-32; A61K033-30; A61K035-78; A61K031-35;
          A61K031-075; A61K031-05; A61K031-045
CC
     63-6 (Pharmaceuticals)
FAN.CNT 4
                    KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
     WO 8706833 A1 19871119 WO 1986-US2543 19861119 <--
PT
        W: AU, BB, DK, JP, KP, KR, NO, SU
         RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
                 A 19880927 US 1986-860654 19860507 <--
A1 19871201 AU 1987-67298 19861119 <--
A6 19890501 ES 1987-1366 19870507 <--
     US 4774229
     AU 8767298
     ES 2006474
                                          CA 1987-536636 19870507 <--
                      A1 19920616
     CA 1303497
PRAI US 1986-860654 19860507 <--
     US 1979-49886
                     19790619 <--
     US 1982-365784 19820405 <--
     WO 1986-US2543 19861119 <--
     A mixt. of an ext. from a plant belonging to the zygophyllaceae
AB
     family contains phenolic compns. and a nonalkali metal salt. It
     is useful as a pharmaceutical agent, e.g. in the treatment of cancer,
     nonmalignant tumors, osteomyelitis, psoriasis, and warts. Larrea
     divaricata Was 1st ground to a fine powder of .apprx.1-150 .mu. particle
     size, and then subjected to extn. with toluene and Et2O. An ointment was
     made from a dried paste from powd. Larrea divaricata, powd. rose hips, and
     aq. ZnCl2. Applications to treatment of osteomyelitis and perianal
     adenomas were successful.
     Zygophyllaceae plant ext metal salt; zinc chloride Zygophyllaceae plant
ST
     ext; cancer treatment Zygophyllaceae metal salt; tumor treatment
     Zygophyllaceae metal salt; antimicrobial Zygophyllaceae metal salt; skin
     disorder treatment Zygophyllaceae metal salt
     Bactericides, Disinfectants, and Antiseptics
IΤ
    Neoplasm inhibitors
        (Zygophyllaceae plant ext.-metal salt mixts. as)
TΤ
     Creosote bush
     Guaiacum (plant)
     Kallstroemia
     Larrea
     Larrea divaricata
     Pagonia
     Porlieria
     Tribulus
     Zygophyllaceae
        (ext., mixts. with metal salts, in treatment of cancer,
        tumors, osteomyelitis, and skin disorders)
     Creosote bush
IT
        (ext., mixts. with zinc chloride, pharmaceutical soln.
        contg., for treatment of cancer, nonmalignant tumors, osteomyelitis,
        and skin disorders)
IT
     Larrea divaricata
        (ext., mixts. with zinc chloride, pharmaceuticals contg., for
        treatment of cancer, nonmalignant tumors, osteomyelitis, and skin
        disorders)
     Osteomyelitis
```

```
Psoriasis
     Wart
        (treatment of, Zygophyllaceae plant ext.-metal salt mixts.
TΨ
     Manganese halides
     RL: BIOL (Biological study)
        (mixts., with Zygophyllaceae plant exts., in treatment of
        cancer, nonmalignant tumors, osteomyelitis, and skin disorders)
     113518-65-3
                  113518-66-4
IT
     RL: BIOL (Biological study)
        (in treatment of cancer, tumors, osteomyelitis and skin disorders)
TΤ
     90-05-1D, Guaiacol, mixts. with metal salts
                                                   90-18-6D,
     Quercetagetin, mixts. with metal salts 117-39-5D,
     Quercetin, mixts. with metal salts 153-18-4D, Rutin,
                              437-64-9D, Apigenin 7-methyl ether,
     mixts. with metal salts
     mixts. with metal salts 480-19-3D, Quercetin 3'-methyl
                                    491-71-4D, Luteolin 3'-methyl
     ether, mixts. with metal salts
     ether, mixts. with metal salts
                                    500-38-9D, mixts.
     with metal salts 500-40-3D, mixts. with metal salts
     520-18-3D, Kaempferol, mixts. with metal salts
     520-36-5D, Apigenin, mixts. with metal salts
     552-54-5D, Quercetin 7,3'-dimethyl ether, mixts. with metal
            569-92-6D, Kaempferol 7-methyl ether, mixts. with metal
     salts
            1245-15-4D, Quercetin 3,7,3',4'-tetramethyl ether, mixts
     salts
     . with metal salts
                         1344-67-8D, Copper chloride (unspecified),
                              1592-70-7D, Kaempferol 3-methyl ether,
    mixts. with plant exts.
     mixts. with metal salts
                             2068-02-2D, Quercetin 3,7-dimethyl
     ether, mixts. with metal salts
                                      3301-49-3D, Kaempferol
     3,7-dimethyl ether, mixts. with metal salts
                                                  4382-17-6D,
     Quercetin 3,3'-dimethyl ether, mixts. with metal salts
     6068-80-0D, mixts. with metal salts 7646-85-7D, Zinc chloride,
                               8023-41-4D, Guaiaconic acid,
     mixts. with plant exts.
     mixts. with metal salts 10025-91-9D, mixts. with plant
             10108-64-2D, mixts. with plant exts.
                                                    20869-95-8D,
     Kaempferol 3,4'-dimethyl ether, mixts. with metal salts
     21637-25-2D, Isoquercitrin, mixts. with metal salts
     23666-13-9D, Vicenin, mixts. with metal salts
                                                    25739-41-7D,
     Luteolin 7,3'-dimethyl ether, mixts. with metal salts
     27554-19-4D, Kaempferol 3-O-rhamnosylglucoside, mixts. with
                  33708-72-4D, Quercetin 3,7,3'-trimethyl ether, mixts
     metal salts
     . with metal salts
                         36469-60-0D, Dihydroguaiaretic acid, mixts.
                        50376-42-6D, Norisoguaiacin, mixts. with
     with metal salts
     metal salts 50938-07-3D, mixts. with metal salts
     54473-24-4D, mixts. with metal salts
                                           56305-02-3D,
     mixts. with metal salts 56305-03-4D, Herbacetin 3,7-dimethyl
                                      57765-84-1D, Gossypetin
     ether, mixts. with metal salts
     3,7-dimethyl ether, mixts. with metal salts 63975-58-6D,
                              113665-37-5D, mixts. with
     mixts. with metal salts
     metal salts 113665-38-6D, mixts. with metal salts
     113665-39-7D, mixts. with metal salts
                                            113665-40-0D,
     mixts. with metal salts 113818-07-8D, mixts. with
                  113818-08-9D, mixts. with metal salts
     metal salts
     113818-09-0D, mixts. with metal salts 113818-10-3D,
     mixts. with metal salts
     RL: BIOL (Biological study)
        (in treatment of cancer, tumors, osteomyelitis, and skin disorders)
L116 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1986:165331 HCAPLUS
ΑN
     104:165331
DN
     A phytochemical study of the fruits of certain Cassia species cultivated
ΤI
     in Egypt
     El-Sayyad, Samia M.; Sayed, Hanaa M.
ΑU
     Fac. Pharm., Assiut Univ., Assiut, Egypt
CS
     Bull. Pharm. Sci., Assiut Univ. (1985), 8(1), 12-27
SO
     CODEN: BPAUEC
```

```
DT
     Journal
     English
LА
     11-1 (Plant Biochemistry)
CC
     Section cross-reference(s): 63
AB
     The pericarps of C. javanica, C. siamea, C. fistula, and C. didymobotrya
     contained flavonoids, anthraquinones, chromones, alkaloids, sterols, and
     (or) triterpenes together with hydrocarbons and alcs. The semi-drying
     seed oils contained too much free fatty acids, waxes and hydrocarbons to
     be used for food. The fatty acids were identified by gas chromatog.
ST
     Cassia fruit compn
IT
     Senna
        (fruit compn. of species of)
     Alcohols, biological studies
IT
     Alkaloids, biological studies
     Fatty acids, biological studies
     Flavonoids
     Leucoanthocyanins
     Triterpenes and Triterpenoids
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Cassia fruits)
IT
     Oils
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Cassia seed)
IT
     Steroids, biological studies
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (hydroxy, of Cassia fruits)
IT
     Senna
        (C. didymobotrya, constituents of fruit of)
     Senna
IT
        (C. fistula, constituents of fruit of)
     Senna
IΤ
        (C. javanica, constituents of fruit of)
TΤ
     Senna
        (C. siamea, constituents of fruit of)
               84-65-1D, derivs. 117-39-5
                                            478-43-3
TΨ
     83-46-5
                                        491-38-3D, derivs.
                  481-72-1
                             481-74-3
     glycosides
                                  521-61-9
                                             559-70-6
     518-82-1 520-18-3 520-36-5
                          638-95-9
                630-04-6
                                      1592-70-7 21637-25-2
     593-49-7
                  32310-28-4
                               92446-27-0
                                            101706-76-7
     28955-30-8
     RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
     (Occurrence)
        (of Cassia fruits)
L116 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1980:625568 HCAPLUS
ΑN
     93:225568
DN
     Chemical substances from inflorescences of Arnica montana L. and Calendula
TТ
     officinalis L. soluble in isopropyl myristate and propylene gaycol
     Gora, J.; Kalemba, D.; Kurowska, A.; Swiatek, L.
ΑIJ
     Inst. Gen. Food Chem., Tech. Univ., Lodz, Pol.
CS
     Herba Hung. (1980), 19(1), 165-71
SO
     CODEN: HEHUAW; ISSN: 0018-0580
DT
     Journal
T.A
     English
     63-4 (Pharmaceuticals)
CC
     Section cross-reference(s): 62
     Prepn. and chem. compn. of isopropyl myristate [110-27-0] and
AB
     propylene glycol [57-55-6] exts. from inflorescences of A. montana and C.
     officinalis were studied. The exts. were obtained by continuous extn. of
     inflorescence with solvents. Iso-Pr myristate exts. contain phenolic
     acids, sterols, and carotenoids. Propylene glycol exts. contain sugars,
     carotenoids, and flavonoids. Some of chem. components of essential oils
     were found in both exts. of those plants. Exts. have antimicrobial
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activity and can be use in cosmetics.
     Arnica ext compn; Calendula ext compn; isopropyl
ST
     myristate ext Arnica Calendula; propylene glycol ext Arnica Calendula
IT
     Phenols, biological studies
     RL: BIOL (Biological study)
        (acids, of iso-Pr myristate exts. of Arnica montana and Calendula
        officinalis)
IT
     Cosmetics
        (antimicrobial exts. of Arnica montana and Calendula officinalis for)
IT
     Arnica montana
     Calendula officinalis
        (iso-Pr myristate and propylene glycol exts. of)
     Bactericides, Disinfectants and Antiseptics
TΤ
        (iso-Pr myristate and propylene glycol exts. of Arnica montana and
        Calendual officinalis)
     Carotenes and Carotenoids, biological studies
IT
     RL: BIOL (Biological study)
        (of iso-Pr myristate and propylene glycol exts. of Arnica montana and
        Calendula officinalis)
IT
     Flavonoids
     Sugars, biological studies
     RL: BIOL (Biological study)
        (of propylene glycol exts. of Arnica montana and Calendula officinalis)
IT
     Steroids, biological studies
     RL: BIOL (Biological study)
        (hydroxy, of iso-Pr myristate exts. of Arnica montana and Calendula
        officinalis)
     Carboxylic acids, biological studies
IT
     RL: BIOL (Biological study)
        (phenolic, of iso-Pr myristate exts. of Arnica montana and Calendula
        officinalis)
     57-55-6, biological studies
                                   110-27-0
IT
     RL: BIOL (Biological study)
        (exts. of Arnica montana and Calendula officinalis in)
                                   121-34-6
IT
     99-96-7, biological studies
     RL: BIOL (Biological study)
        (of Arnica montana and Calendula officinalis iso-Pr myristate exts.)
IT
     117-39-5 21637-25-2
     RL: BIOL (Biological study)
        (of Arnica montana and Calendula officinalis propylene glycol exts.)
IT
     99-50-3
               1135-24-6
     RL: BIOL (Biological study)
        (of Arnica montana iso-Pr myristate exts.)
IT -
     480-10-4 520-18-3
     RL: BIOL (Biological study)
        (of Arnica montana propylene glycol ext.)
                                                          7400-08-0
                                  331-39-5
                                              530-57-4
IT
     69-72-7, biological studies
     RL: BIOL (Biological study)
        (of Calendula officinalis iso-Pr myristate exts.)
L116 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2000 ACS
     1977:114978 HCAPLUS
ΑN
     86:114978
DN
     Inhibition of lens aldose reductase by flavonoids-their possible role in
ΤI
     the prevention of diabetic cataracts
ΑU
     Varma, Shambhu D.; Kinoshita, Jin H
     Natl. Eye Inst., Natl. Inst. Health, Bethesda, Md., USA
CS
     Biochem. Pharmacol. (1976), 25(22), 2505-13
SO
     CODEN: BCPCA6
DT
     Journal
     English
LA
CÇ
     1-3 (Pharmacodynamics)
     Section cross-reference(s): 7
     Of 41 flavone derivs. which inhibited aldose reductase [9028-31-3] of rat
AΒ
     eye lenses, quercitrin [522-12-3] and quercitryl 2"-acetate
```

[61891-39-2] were the most potent and inhibited activity by 50% at 10-7

```
and 4 .times. 10-8M resp. Structural alterations in the basic flavonoid
    moiety indicated more potent analogs may be synthesized which may
    ultimately be useful in diabetic patients.
ST
    aldose reductase eye flavonoid
ΙT
    Flavonoids
    RL: BIOL (Biological study)
       (aldose reductase of eye inhibition by)
IT
    Eye, composition
       (aldose reductase of, flavonoids inhibition of)
    Molecular structure-biological activity relationship
IT
        (aldose reductase-inhibiting, of flavonoids)
                                301-19-9
IT
    117-39-5 153-18-4 154-23-4
    305-01-1 327-97-9
                        480-16-0
                                   480-17-1 480-40-0
    480-44-4 482-36-0
                        490-46-0
                                    491-54-3 491-70-3
    520-18-3 520-26-3 520-33-2 520-36-5
    522-12-3 528-48-3 528-53-0 529-44-2
                                            531-75-9
    552-58-9 652-78-8 5117-01-1 6980-20-7
                                                7085-55-4
    10236-47-2 15485-76-4
                             17334-58-6
                                        17912-87-7 21637-25-2
    23869-24-1
                26544-34-3
                             28608-75-5
                                          30902-90-0
                                                     50376-44-8
               61891-38-1
                             61891-39-2
    51031-80-2
    RL: BIOL (Biological study)
       (aldose reductase of eye inhibition by)
TΤ
    9028-31-3
    RL: PROC (Process)
       (of eye lens, flavonoids inhibition of)
=> fil napral
FILE 'NAPRALERT' ENTERED AT 10:53:42 ON 03 JUL 2000
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University of Illinois at Chicago.
    Some records in this file are extremely long when displayed in
   the ALL format. The CHC (Character Count) field can be used to
   estimate record length. Type HELP CONTENT at the next arrow
   prompt (=>) for data content and search strategy information.
FILE COVERS 1650 TO 16 JUN 2000 (20000616/ED)
This file contains CAS Registry Numbers for easy and accurate
substance identification.
=> d ihs 1117-
'IHS' IS NOT A VALID FORMAT FOR FILE 'NAPRALERT'
'L117-' IS NOT A VALID FORMAT FOR FILE 'NAPRALERT'
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ALL ----- All data for the record
BIB ----- AN, plus Bibliographic Data
CBIB ----- AN, plus Bibliographic Data (compressed)
IALL ----- ALL, indented with text labels for the Bibliographic Data
IBIB ----- BIB, indented with text labels
ORG ----- Information on all organisms cited
QRD ----- Variable -- fields displayed are related to the search
SAM ----- Title (Answers are numbered, no AN)
SCAN ----- Title (Random/display without answer numbers, no AN)
HIT ----- Fields containing hit terms (this could be VERY large)
KWIC ----- Hit term plus 20 words on either side
OCC ----- Number of occurrences of hit term and field in which it occurs
CHC ----- Approximate character count for the record
```

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All of the formats (except for SAM, SCAN, HIT, KWIC or OCC) may be used with the DISPLAY ACC comm and to display the record for a specified Accession Number.

ENTER DISPLAY FORMAT (QRD):end

=> d his 1117-

(FILE 'HCAPLUS' ENTERED AT 10:49:06 ON 03 JUL 2000)

FILE 'NAPRALERT' ENTERED AT 10:51:51 ON 03 JUL 2000

L117 518 S L110
L118 573 S L28
L119 3 S L117 (L) (VIRAL? OR VIRUS? OR VIRUC? OR HERPE? OR ANTIVIR? OR
L120 2 S L118 (L) (VIRAL? OR VIRUS? OR VIRUC? OR HERPE? OR ANTIVIR? OR
L121 5 S L119, L120

FILE 'NAPRALERT' ENTERED AT 10:53:42 ON 03 JUL 2000

=> d 1121 tot grd

L121 ANSWER 1 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.

AN 97:3883 NAPRALERT

DN K29118

TI CONSTITUENTS OF CONVOLVULUS LANATUS VAHL. WITH ANTIVIRAL AND CYTOTOXICACTIVITY

AU EL-FIKY F K; ABDEL-KADER M S; ABOUL-ELA M A

CS PHARMACOG DEPT, FAC PHARM, ALEXANDRIA UNIV, ALEXANDRIA EGYPT

SO ALEXANDRIA J PHARM SCI (1996) 10 (1) p. 25-28.

DT (Research paper)

LA ENGLISH

CHC 2684

ORGN Class: DICOT Family: CONVOLVULACEAE Genus: CONVOLVULUS Species: LANATUS

Organism part: DRIED ENTIRE PLANT

TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL

ACTIVITY

Dosage Information: CELL CULTURE; ED50: 20.0 MCG per ML

Pathological system: VESICULAR STOMATITIS VIRUS

Qualitative results: WEAK ACTIVITY

COMPOUND. Chemical name (CN): CAFFEIC ACID

CAS Registry Number (RN): 331-39-5

Class identifier (CI): PHENYLPROPANOID

TYPE OF STUDY (STY): ISOLATION.

COMPOUND. Chemical name (CN): QUERCITRIN, ISO

CAS Registry Number (RN): 21637-25-2

Class identifier (CI): FLAVONOID

Yield: 00.00122%

TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY

Dosage Information: CELL CULTURE; IC50: 20.0 MCG per ML

Pathological system: CELLS-NIH-3T3 Qualitative results: WEAK ACTIVITY

COMPOUND. Chemical name (CN): QUERCITRIN, ISO

CAS Registry Number (RN): 21637-25-2

Class identifier (CI): FLAVONOID

TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY

Dosage Information: CELL CULTURE; IC50: 20.0 MCG per ML

Qualitative results: WEAK ACTIVITY

Comment(s): VS.CELL LINE KA31T.

COMPOUND. Chemical name (CN): QUERCITRIN, ISO CAS Registry Number (RN): 21637-25-2

(0)

V ON

```
Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY
          Dosage Information: CELL CULTURE; IC50: 35.0 MCG per ML
          Qualitative results: WEAK ACTIVITY
          Comment(s): VS.PROLIFERATING VERO CELLS.
          COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY
         Dosage Information: CELL CULTURE; IC50: 200.0 MCG per ML
         Qualitative results: INACTIVE
         Comment(s): VS.NON-PROLIFERATING VERO CELLS.
          COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
         ACTIVITY
         Dosage Information: CELL CULTURE; ED50: 200.0 MCG per ML
          Pathological system: PARAINFLUENZA VIRUS 3
         Qualitative results: INACTIVE
         COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
               Class identifier (CI): FLAVONOID
L121 ANSWER 2 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.
     94:4992 NAPRALERT
    K16396
     INHIBITION OF HIV INFECTION BY FLAVANOIDS
    MAHMOOD N; PIZZA C; AQUINO R; DE TOMMASI N; PIACENTE S; COLMAN S; BURKE A;
    MRC COLL CENT, LONDON ENGLAND
    ANTIVIRAL RES (1993) 22 (2/3) p. 189-199.
     (Research paper)
    ENGLISH
CHC 17724
ORGN Class: DICOT Family: LABIATAE Genus: MINTHOSTACHYS Species: SETOSA
     Organism part: DRIED LEAF
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
         ACTIVITY
         Dosage Information: CELL CULTURE; ED50: >100 MCG per ML
         Pathological system: VIRUS-HIV-1
         Qualitative results: INACTIVE
         Comment(s): C8166 CELLS WERE INFECTED.
         COMPOUND. Chemical name (CN): QUERCITRIN, OS
               Class identifier (CI): FLAVONOID
     TYPE OF STUDY (STY): ISOLATION.
         COMPOUND. Chemical name (CN): HYPEROSIDE
               CAS Registry Number (RN): 482-36-0
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
         ACTIVITY
         Dosage Information: CELL CULTURE; ED50: >100 MCG per ML
          Pathological system: virus-HIV-1
         Qualitative results: INACTIVE
         Comment(s): C8166 CELLS WERE INFECTED.
          COMPOUND. Chemical name (CN): HYPEROSIDE
               CAS Registry Number (RN): 482-36-0
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY
         Dosage Information: CELL CULTURE; IC50: >100 MCG per ML
          Pathological system: CELLS-C8166
          Qualitative results: INACTIVE
          COMPOUND. Chemical name (CN): HYPEROSIDE
               CAS Registry Number (RN): 482-36-0
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
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ACTIVITY
          Dosage Information: CELL CULTURE; ED50: >100 MCG per ML
          Pathological system: VIRUS-HIV-1
          Qualitative results: INACTIVE
          Comment(s): C8166 CELLS WERE INFECTED.
          COMPOUND. Chemical name (CN): RHAMNETIN, ISO
               CAS Registry Number (RN): 480-19-3
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
          ACTIVITY
          Dosage Information: CELL CULTURE; ED50: 40.0 MCG per ML
          Pathological system: VIRUS-HIV-1
          Qualitative results: INACTIVE
          Comment(s): C8166 CELLS WERE INFECTED.
          COMPOUND. Chemical name (CN): FLAVONONE, 5-7-DIHYDROXY-4'-METHOXY:
                    7-O-RUTINOSIDE
               Class identifier (CI): FLAVONOID
L121 ANSWER 3 OF 5 NAPRALERT COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.
     93:4544 NAPRALERT
AΝ
    K12425
DN
     QUERCETIN AND ITS GLUCOSIDE FOR TREATMENT OF HEPATITIS B
TΙ
    MATSUMOTO M; OKUNO T; WATANABE A; KIDO Y; YOSHIDA O
ΑU
     FUJIREBIO INC, JAPAN
CS
     PATENT-JAPAN KOKAI TOKKYO KOHO-04 234,320 (1992) p. 3PP-..
SO
DT
     Journal
LA
     JAPANESE
    CA 117:226302
os
CHC 960
ORGN Class: DICOT
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): DNA POLYMERASE
          INHIBITION
          Dosage Information: CONC USED: 0.1 MG per ML
          Pathological system: HEPATITIS B VIRUS
          Qualitative results: ACTIVE
          Comment(s): DATA INCOMPLETE - DERIVED FROM AN ABSTRACT. BIOLOGICAL
                      ACTIVITY REPORTED HAS BEEN PATENTED.
          COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
               Class identifier (CI): FLAVONOID
L121 ANSWER 4 OF 5 NAPRALERT
                               COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.
     92:98718 NAPRALERT
AN
     K08042
DΝ
     ISOLATION AND CHARACTERIZATION OF AN ANTIVIRAL FLAVONOID FROM WALDSTEINIA
TI
     FRAGARIOIDES
     ABOU-KARAM M; SHIER W T
ΑU
     DEPT MED CHEM, COLL PHARM, UNIV MINNESOTA, MINNEAPOLIS MN 55455 USA
CS
     J NAT PROD (1992) 55 (10) p. 1525-1527.
SO
DT
     (Research paper)
     ENGLISH
LΑ
CHC
    1080
ORGN Class: DICOT Family: ROSACEAE Genus: WALDSTEINIA Species: FRAGARIOIDES
      Organism part: DRIED ENTIRE PLANT
      Geographic area (GT): USA-MN; AMN
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
          ACTIVITY
          Extract type: ETOH(95%)EXT
          Dosage Information: CELL CULTURE; IC50: 15.7 MCG per ML
          Pathological system: VIRUS-HIV-1
          Qualitative results: ACTIVE
      TYPE OF STUDY (STY): ISOLATION.
          COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
```

Class identifier (CI): FLAVONOID

Yield: 00.00036%

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TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
          Dosage Information: CELL CULTURE; CONC USED: 40.0 MCG per ML
          Pathological system: HERPES SIMPLEX 1 VIRUS
          Qualitative results: ACTIVE
          COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY
          Dosage Information: CELL CULTURE; IC50: 250.0 MCG per ML
          Pathological system: CELLS-VERO
          Qualitative results: WEAK ACTIVITY
          COMPOUND. Chemical name (CN): QUERCITRIN, ISO
               CAS Registry Number (RN): 21637-25-2
               Class identifier (CI): FLAVONOID
L121 ANSWER 5 OF 5 NAPRALERT
                               COPYRIGHT (C) 2000 BD. TRUSTEES, U. IL.
     92:89453 NAPRALERT
    T12008
    ANTIVIRAL ACTIVITY OF NATURAL OCCURRING FLAVONOIDS IN VITRO
    TSUCHIYA Y; SHIMIZU M; HIYAMA Y; ITOH K; HASHIMOTO Y; NAKAYAMA M; HORIE T;
    KYOTO RES INST, KAKEN PHARMACEUT CO LTD, KYOTO 607 JAPAN
     CHEM PHARM BULL (1985) 33 (9) p. 3881-3886.
     (Research paper)
    ENGLISH
CHC 9420
ORGN Class: DICOT
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): CYTOTOXIC ACTIVITY
          Dosage Information: CELL CULTURE; ED50: >40.0 MCG per ML
          Pathological system: CELLS-CHO(CHINESE HAMSTER OVARY)
          Qualitative results: INACTIVE
          COMPOUND. Chemical name (CN): HYPEROSIDE
               CAS Registry Number (RN): 482-36-0
               Class identifier (CI): FLAVONOID
      TYPE OF STUDY (STY): IN VITRO. Classification (CC): ANTIVIRAL
         ACTIVITY
          Dosage Information: CELL CULTURE; MINIMUM TOXIC DOSE: >40.0 MCG per
         ML
          Pathological system: RHINOVIRUS
          Qualitative results: INACTIVE
          COMPOUND. Chemical name (CN): HYPEROSIDE
               CAS Registry Number (RN): 482-36-0
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): SWERTISIN
               CAS Registry Number (RN): 6991-10-2
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): TECTOCHRYSIN
               CAS Registry Number (RN): 520-28-5
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): VITEXIN
               CAS Registry Number (RN): 3681-93-4
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): WOGONIN
               CAS Registry Number (RN): 632-85-9
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): PECTOLINARIGENIN
               CAS Registry Number (RN): 520-12-7
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): RHOIFOLIN
               CAS Registry Number (RN): 17306-46-6
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): SCUTELLAREIN
               CAS Registry Number (RN): 529-53-3
               Class identifier (CI): FLAVONOID
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COMPOUND. Chemical name (CN): SORBARIN

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CAS Registry Number (RN): 24512-68-3
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): LUTEOLIN
     CAS Registry Number (RN): 491-70-3
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): FLAVONE, 3'-4'-5-6-7-PENTAHYDROXY
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): ORIENTIN
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): PECTOLINARIN
     CAS Registry Number (RN): 28978-02-1
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): COSMOSIIN
     CAS Registry Number (RN): 578-74-5
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): DIOSMETIN
     CAS Registry Number (RN): 520-34-3
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): EMBININ
     CAS Registry Number (RN): 52589-13-6
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): LINARIN
     CAS Registry Number (RN): 480-36-4
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): BAICALIN
     CAS Registry Number (RN): 21967-41-9
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): FLAVONE, 5-6-7-TRIMETHOXY
    CAS Registry Number (RN): 973-67-1
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): CIRSIMARITIN
     CAS Registry Number (RN): 6601-62-3
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): CIRSIMARIN
     CAS Registry Number (RN): 13020-19-4
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): ACACETIN
     CAS Registry Number (RN): 480-44-4
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): APIGENIN
    CAS Registry Number (RN): 520-36-5
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): APIIN
     CAS Registry Number (RN): 26544-34-3
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): BAICALEIN
    CAS Registry Number (RN): 491-67-8
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): NARINGIN
     CAS Registry Number (RN): 10236-47-2
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): NARINGENIN
     CAS Registry Number (RN): 480-41-1
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): ROVININ
     CAS Registry Number (RN): 99566-93-5
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): AMENTOFLAVONE
     CAS Registry Number (RN): 1617-53-4
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): GENISTEIN
     CAS Registry Number (RN): 446-72-0
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): RIDIN
     Class identifier (CI): FLAVONOID
COMPOUND. Chemical name (CN): SOPHORICOSIDE
```

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CAS Registry Number (RN): 152-95-4
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): HESPERIDIN
               CAS Registry Number (RN): 520-26-3
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): QUERCITRIN
               CAS Registry Number (RN): 522-12-3
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): OUERCETAGETIN
               CAS Registry Number (RN): 90-18-6
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): RUTIN
               CAS Registry Number (RN): 153-18-4
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): FLAVONE, 4'-HYDROXY-3-3'-5-6-7-
                    PENTAMETHOXY
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): MORIN
               CAS Registry Number (RN): 480-16-0
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): MYRICETIN
               CAS Registry Number (RN): 529-44-2
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): MYRICITRIN
               CAS Registry Number (RN): 17912-87-7
               Class identifier (CI): FLAVONOID
          COMPOUND. Chemical name (CN): QUERCETIN
               CAS Registry Number (RN): 117-39-5
               Class identifier (CI): FLAVONOID
FILE 'MEDLINE' ENTERED AT 10:56:53 ON 03 JUL 2000
```

=> fil medline

FILE LAST UPDATED: 29 JUN 2000 (20000629/UP). FILE COVERS 1960 TO DATE.

MEDLINE has been reloaded to reflect the annual MeSH changes made by the National Library of Medicine for 2000. Enter HELP RLOAD for details.

OLDMEDLINE, data from 1960 through 1965 from the Cumulated Index Medicus (CIM), has been added to MEDLINE. See HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> d his 1122-

(FILE 'NAPRALERT' ENTERED AT 10:51:51 ON 03 JUL 2000)

FILE 'NAPRALERT' ENTERED AT 10:53:42 ON 03 JUL 2000

FILE 'MEDLINE' ENTERED AT 10:54:30 ON 03 JUL 2000 L122 19 S L110 L123 50 S ISOQUERCITRIN 19 S L28 L124 80 S ISOQUERCITRIN OR HYPEROSIDE L125 1 S L122-L125 AND ?HERPE? L126 2 S L122-L125 AND (ANTIVIRAL AGENTS+NT OR VIRUS DISEASES+NT OR VI L127

L128 2 S L126, L127

L129 1 S L128 NOT CLOVER

FILE 'MEDLINE' ENTERED AT 10:56:53 ON 03 JUL 2000

=> d all L129 ANSWER 1 OF 1 MEDLINE 93085369 MEDLINE DN 93085369 TI Isolation and characterization of an antiviral flavonoid from Waldsteinia fragarioides. Abou-Karam M; Shier W T IIA Department of Medicinal Chemistry, College of Pharmacy, University of CS Minnesota, Minneapolis 55455. JOURNAL OF NATURAL PRODUCTS, (1992 Oct) 55 (10) 1525-7. SO Journal code: JA4. ISSN: 0163-3864. United States CY Journal; Article; (JOURNAL ARTICLE) DТ LΑ English FS Priority Journals EΜ 199303 The antiviral agent in a fraction from Waldsteinia fragarioides (Rosaceae) AΒ was purified using bioassay-guided fractionation of activity against herpes simplex type 1 virus. Structural eluciation by instrumental methods identified the active component to be the known flavonoid glycoside, isoquercitrin (3,3',4',5,7-pentahydroxyflavone-3 beta-O-glucoside), which had not previously been shown to possess antiviral activity. Check Tags: Support, Non-U.S. Gov't CT *Antiviral Agents: IP, isolation & purification Antiviral Agents: PD, pharmacology *Bioflavonoids: IP, isolation & purification Bioflavonoids: PD, pharmacology HIV-1: DE, drug effects Nuclear Magnetic Resonance Plant Extracts: CH, chemistry *Plant Extracts: IP, isolation & purification Plant Extracts: PD, pharmacology *Plants, Medicinal: CH, chemistry Plaque Assay Simplexvirus: DE, drug effects 0 (Antiviral Agents); 0 (Bioflavonoids); 0 (Plant Extracts) CN => fil wpids FILE 'WPIDS' ENTERED AT 11:01:59 ON 03 JUL 2000 COPYRIGHT (C) 2000 DERWENT INFORMATION LTD FILE LAST UPDATED: 30 JUN 2000 <20000630/UP> >>>UPDATE WEEKS: MOST RECENT DERWENT WEEK 200031 <200031/DW> DERWENT WEEK FOR CHEMICAL CODING: 200031 DERWENT WEEK FOR POLYMER INDEXING: 200031 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE >>> D COST AND SET NOTICE DO NOT REFLECT SUBSCRIBER DISCOUNTS -SEE HELP COST <<< >>> FOR UP-TO-DATE INFORMATION ABOUT ALL 'NEW CONTENT' CHANGES TO WPIDS, INCLUDING THE DERWENT CHEMISTRY RESOURCE (DCR), PLEASE VISIT http://www.derwent.com/newcontent.html <<< >>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://www.derwent.com/covcodes.html <<< => d his 1130-(FILE 'MEDLINE' ENTERED AT 10:56:53 ON 03 JUL 2000) FILE 'WPIDS' ENTERED AT 10:57:02 ON 03 JUL 2000

```
21 S ISOQUERCITRIN? OR ISO QUERCITRIN?
L130
                E ISOQUERCITRIN/DCN
                E E3+ALL/DCN
             19 S E2
L131
             34 S L130, L131
L132
             21 SEA L132 AND M782/M0,M1,M2,M3,M4,M5,M6
L133
              8 SEA L132 AND (Q262 OR Q263)/M0,M1,M2,M3,M4,M5,M6
L134
              6 SEA L132 AND P210/M0, M1, M2, M3, M4, M5, M6
L135
              0 SEA L132 AND P861/M0, M1, M2, M3, M4, M5, M6
L136
                E BUCHHOLZ H/AU
             67 S E3-E9
L137
                E WAGNER A/AU
            319 S E3-E13
L138
                E KRAUS C/AU
             66 S E3-E7
L139
                E MEDUSKI J/AU
              7 S E3-E5
L140
              4 S L132 AND L137-L140
L141
             24 S L133-L135, L141
L142
             10 S L132 NOT L142
L143
             34 S L142, L143
L144
     FILE 'WPIDS' ENTERED AT 11:01:59 ON 03 JUL 2000
=> d all abeq tech tot
                                             DERWENT INFORMATION LTD
L144 ANSWER 1 OF 34 WPIDS COPYRIGHT 2000
     2000-365386 [31]
                        WPIDS
 AN
 DNC C2000-110284
      Orally applicable composition comprises a mixture of the bioflavonols
      isoquercetin or quercetin-4'-glucoside and rutin, optionally with
 TΤ
      quercetin, useful for protecting against oxidative damage to human organs,
      tissues and cells.
 DC
      BUCHHOLZ, H; MEDUSKI, J
 IN
      (MERE) MERCK PATENT GMBH
 PA
 CYC
                                                       A61K031-70
      WO 2000025795 A1 20000511 (200031)* EN
                                                 q8
         RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 ΡI
             OA PT SD SE SL SZ TZ UG ZW
          W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB
             GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
             LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
             TT UA UG US UZ VN YU ZA ZW
 ADT WO 2000025795 A1 WO 1999-EP7865 19991016
                                                   19981029
                        19990322; US 1998-106080
 PRAI EP 1999-105035
      ICM A61K031-70
 IC
      A61K031:70; A61K031-70
 ICI
      WO 200025795 A UPAB: 20000630
      NOVELTY - Orally applicable composition comprises a mixture of the
 AB
      bioflavonols isoquercetin (quercetin-3-glucoside) or quercetin-4'-
      glucoside and rutin, optionally together with quercetin.
            DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for:
            (1) maintaining a continued presence of high concentrations of
      bioflavonols in human plasma for an extended period of time comprising
       orally administering the above composition;
            (2) a pharmaceutical composition comprising a pharmaceutically active
       ingredient, a carrier and the above composition.
            ACTIVITY - Antibacterial; antiviral; cardiant; cytostatic.
            USE - The composition is useful for protecting against oxidative
       damage to human organs, tissues and cells; for supporting a
       pharmacological treatment of a disease or dysfunction caused by oxidative
       damage; or as a food supplement (all claimed). Also for preventing and
```

treating cardiovascular disease and other damage to vascular tissues, for preventing neoplastic growth, for treating bacterial and viral diseases,

and metabolic dysfunctions involving oxidative damages.

ADVANTAGE - The composition presents a bioflavanoid complex with delayed release of the bioflavonols assuring similar pharmacological and nutraceutical activity during a prolonged period of time.

DESCRIPTION OF DRAWING(S) - The diagram shows the results of a composition prepared by mixing 400 mg rutin with 100 mg isoquercetin. Dwg.1/1

FS CPI

FA AB; GI; DCN

MC CPI: B06-A01; B12-M10B; B14-A01; B14-A02; B14-F01B; B14-F02; B14-H01B; B14-S08

TECH UPTX: 20000630

TECHNOLOGY FOCUS - PHARMACEUTICALS - The composition comprises isoquercetin and rutin in a molar ration of 1:4 and when administered to humans, this composition maintains very similar concentrations of flavonols in the plasma up to 24 hours assuring similar pharmacological and nutraceutical activity. The composition may also comprise isoquercetin or quercetin-4'-glucoside, quercetin and rutin in a molar ratio of 1:1.5:3 and when administered to humans, maintains very similar concentrations of flavonols in the plasma up to 48 hours assuring similar pharmacological and nutraceutical activity

L144 ANSWER 2 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 2000-365365 [31] WPIDS

DNC C2000-110263

TI Compositions for treating transmethylation disorders, especially cardiovascular diseases e.g. atherogenic and thrombogenic diseases, comprise methyl and methylene donors, methyl transporters and bioflavonoids.

DC B02

IN BUCHHOLZ, H; MEDUSKI, J D

PA (MERE) MERCK PATENT GMBH

CYC 87

PI WO 2000025764 A2 20000511 (200031)* EN 16p A61K031-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

ADT WO 2000025764 A2 WO 1999-EP7689 19991013

PRAI US 1998-106205 19981030

IC ICM A61K031-00

AB WO 200025764 A UPAB: 20000630

NOVELTY - Compositions for treating transmethylation disorders comprise methyl and methylene donors, methyl transporters and bioflavonoids as active ingredients and optionally, one or more nutritional substances, solid, liquid and/or semiliquid excipients or auxiliaries.

DETAILED DESCRIPTION - Compositions comprise one or more active ingredients and optionally, one or more nutritional substances, solid, liquid and/or semiliquid excipients or auxiliaries. The active ingredient comprises:

- (a) a component (A) comprising one or more compounds selected from methyl and methylene donors;
 - (b) a component (B) comprising one or more methyl transporters; and
 - (c) a component (C) comprising one or more bioflavonoids.

An INDEPENDENT CLAIM is also included for the use of one or more compounds selected from methyl and methylene donors, one or more transporters and one or more bioflavonoids in the preparation of a composition for treating transmethylation disorders.

ACTIVITY - Cardiant; antiarteriosclerotic; thrombolytic; hypotensive; cerebroprotective.

USE - For treating and preventing transmethylation disorders, cardiovascular diseases, atherogenic and/or thrombogenic diseases, diseases associated with hyperhomocysteinemia; premature occlusive arterial disease, severe vascular disease in infancy and childhood, progressive arterial stenosis, intermittent claudication, renovascular

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ΔN

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DC IN

PA

PΙ

IC

AΒ

FS

FΑ

MC

hypertension, ischemic occlusion, cerebral occlusive arterial disease, occlusive peripheral arterial disease, premature death due to thromboembolic disease and/or ischemic disease (all claimed). ADVANTAGE - The compositions are more effective than prior art preparations. Dwg.0/0CPI AB; DCN CPI: B06-A01; B06-D09; B10-A22; B10-B02H; B10-B02J; B12-M11B; B14-F01; B14-F02; B14-F04; B14-N16 TECH UPTX: 20000630 TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Component (C) comprises one or more compounds selected from mono-, di-, or triglycoside bioflavonoids containing the aglycone quercetin. L144 ANSWER 3 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 2000-364474 [31] WPIDS DNC C2000-109946 Suppository composite for treating fever and influenza comprises radix bupleuri scorzonerifolium, flos lonicerae japonicae, fructus forsythiae, fructus arctii, herba schizonepetae and calculus bovis. HSU, W; KENG, S (HSUW-I) HSU W; (KENG-I) KENG S CYC 1 17p A01N025-00 A 20000516 (200031)* US 6063383 ADT US 6063383 A US 1999-238744 19990128 PRAI US 1999-238744 19990128 ICM A01N025-00 ICS A01N065-00; A61K035-78; A61K039-385; A61K047-00 6063383 A UPAB: 20000630 NOVELTY - A suppository composite for treating fever and influenza comprises 2750 to 3250g of radix bupleuri scorzonerifolium wild, 1750 to 2250g of flos lonicerae japonicae, 1950 to 2450g of fructus forsythiae, 1650 to 2150g of fructus arctii, 2550 to 3050g of herba schizonepetae, 50 to 550g of calculus bovis and 870 to 1370g of suppository excipient. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for preparation of the suppository comprising: (a) distilling a mixture of radix bupleuri scorzonerifolium wild, fructus forsythiae, herba schizonepetae and water to give volatile oils, an aqueous solution and gruffs; (b) mixing the gruffs with flos lonicerae japonicae, fructus arctii and water and filtering to give filtered gruffs and a decoction; (c) adding water to the filtered gruffs and filtering to give a second decoction; (d) concentrating the aqueous solution and decoctions to give a concentrate with a density of 1.2 to 1.25 at 70 to 80 deg. C; (e) extracting the concentrate with ethanol and concentrating the extract to give a powder; and (f) mixing the dry powder with calculus bovis, volatile oil and excipient and then heating and moulding the mixture to give the suppository composite. ACTIVITY - Anti-pyretic. MECHANISM OF ACTION - None given. USE - The suppositories are useful for treating fever and influenza. Dwg.0/6 CPI AB; DCN CPI: B01-D01; B01-D02; B06-A01; B06-A02; B06-A03; B07-A02B; B09-D01; B09-D02; B10-C04A; B10-D01; B10-E04A; B10-E04D; B10-F02; B10-J02; B12-M08; B14-A02B2; B14-C04 TECH UPTX: 20000630 TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: The mixture in step (a) is preferably infused for 2-hours 1 volume and 5 volumes of water and gives 6ml of volatile oil and 6000ml of aqueous distillate. The

mixture is step (b) is preferably infused with 1 volume of water for 1

hour and distilled to form the decoction or infused with 5 volumes of water and gives 30000ml of decoction. The mixture is step (c) is preferably infused with 4 volumes of water for 1 hour and filtered to give 20000ml of filtrate. The mixture is preferably concentrated in step (d) to give 11000ml of concentrate which is mixed with 40000ml of 95% ethanol for 24 hours. Step (e) preferably gives 1000g of powder and the mixture in step (f) gives 1120 suppositories with a weight of 2q. TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The radix bupleuri scorzonerifolium wild preferably includes volatile oil containing beta-terpinene, limonene, camphene, beta-fenchene, pulegone, isoborneol, beta-terpineol, linalool, alpha-copaene, humulene, alpha-farnesene, aromadendrene, cis-caryophyllene, iso-caryophyllene, beta-elemene, gamma-muurolene, patchoulane, nootkatone and ledol and preferably includes 0.15% of saikosaponin (containing bupleurum saponin-a, bupleurum saponin-d and bupleurum saponin-c). It preferably also contains sorbitin, sorbiphenol-7-rhamnosin, quercetin, isoquercetin, isorhamnetin, rutin and narcissin. The fructus forsythiae preferably includes esters, ketones (rutin), phenyl ethane compounds (forsythoside-a, forsythoside-c, forsythoside-d, forsythoside-e, suspensaside and salidroside), ethyl cyclic-hexatone (cornoside, rengyol, isorengyol, rengyoxide, rengyolone and rengyoside-a, -b and -c) and triterpenes (betulinic acids, oleanolic acids, mrsolic acids, beta-amyrin acetate, iso-bauerenyl acetate, 20-(S)-dammar-24-ene-3beta and 20-diol-3-acetate), especially forsythin, phillygenin, pinoresinol and pinoresinol-beta-D-glucoside. The herba schizonepetae preferably includes a volatile oil comprising pulegone, menthone, isomenthone, isopulegone, 1-ethoxypentane, 3methylcyclopentonone, 3-methylcyclohexanone, benzaldehyde, 1-octen-3-ol, 3-octanone, 3-octanol, cymene, limonene, neomenthol, menthol, piperitone, piperitenone, humulene, caryopyllen, beta-pinene, 3,5-dimethyl-2cyclohexen-1-one, ethenyl dimethyl benzene, cineole, carvone, dihydrocarvone, verbenone, monoterpene compounds, ketones and phenol acids. The flos lonicerae japonicae preferably includes chlorogenic acid, isochlorogenic acid, ginnol, beta-sitosrol, stigmasterol, beta-sitosrol, stigmasterol-D-glucoside, linalool, cis-6,6-trimethyl-2-vinyl-5-hydroxytetrahydropyran, ethylpalmitate, 1,1'-bicyclohexyl, methyllinoleate, 3-methyl-2-(2-pentenyl), tran-tran-farnesol, ethyllinolenate, beta-cubebene, cis-3-hexen-1-ol, alpha-terpineol, benzyl alcohol, 2-methyl-1-butanol, banztlalcohol, phenethylalcohol, cis-linalooloxide, eugenol and carvacrrol. The calculus bovis preferably comprises bilirubin, cholic acid, deoxycholic acid, bile salts, cholesterol, ergosterol, fatty acids, lecithine, vitamin D, calcium, sodium, iron, potassium, copper, magnesium, phosphorus, para-carotene, alanine, glycine, taurine, aspartic acid, arginine, leucine, methionine, SMC-S2 and SMC-F. The fructus arctii preferably comprises arctiin, hydrolysed arctigenin, glucose, amatairesinol, trachelogenin, sesquilignan AL-D and AL-F arctiin, lappaol A, B, C, D, E, F, and H, arachic acid, stearic acid, palmitic acid and linoleic acid. The excipient is preferably cocoa butter.

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L144 ANSWER 4 OF 34 WPIDS COPYRIGHT 2000
                                           DERWENT INFORMATION LTD
AN
     2000-294038 [26]
                       WPIDS
DNC C2000-088981
     Use of butylhydroxytoluene for stabilizing flavone, flavanone and/or
TΙ
     flavonoid useful in cosmetic and dermatological formulations.
DC
     D21 E13 E17
    MAX, H; SCHOENROCK, U; STAEB, F; UNTIEDT, S
IN
PA
     (BEIE) BEIERSDORF AG
CYC 25
     DE 19845266
                                             19p
                 A1 20000406 (200026)*
                                                    A61K007-48
PT
     EP 998899
                  A1 20000510 (200027) DE
                                                    A61K007-00
        R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI
    DE 19845266 A1 DE 1998-19845266 19981001; EP 998899 A1 EP 1999-119017
     19990928
PRAI DE 1998-19845266 19981001
     ICM A61K007-00; A61K007-48
     ICS A61K007-42; C09K015-08
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AΒ DE 19845266 A UPAB: 20000531 NOVELTY - Butylhydroxytoluene is used for stabilizing flavones, flavanones and/or flavonoids against chemical degradation, especially photochemical and/or oxidative degradation. USE - The combination is used in cosmetic or topical dermatological formulations (claimed), suitable for skin care and protecting skin, especially sensitive and aged or aging skin, e.g. for the treatment or prophylaxis of erythematous, inflammatory, allergic and autoimmune conditions and photodermatosis, especially polymorphic photodermatosis. The combination is useful in e.g. skin and hair cosmetics such as hair colors, lacquers, shampoos, color shampoos, nail varnish, lipstick, foundation, washing and shower formulations and skin creams. ADVANTAGE - Adding butylhydroxytoluene protects the formulations from oxidation before use and after application to the skin. The combination with flavone (derivatives) is a synergistic mixture giving effective protection against harmful oxidation processes in the skin and in the formulation. Dwg.0/0 CPI FS AB; DCN FΑ CPI: D08-B; E06-A01; E10-E02E1 MC UPTX: 20000531 TECH TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The active compound is alpha-glucosyl rutin. Preferred Composition: The flavone(s), flavanone(s) and/or flavonoids are used in effective amounts for cosmetic or topical dermatological formulations, preferably in concentrations of 0.01-10, especially 0.05-5, more especially 0.1-2.0 wt. %. The butylhydroxytoluene concentration is 0.001-10, especially 0.05-5, more especially 0.1-2.0 wt. % with respect to the total formulation. L144 ANSWER 5 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 2000-237760 [20] AN WPIDS DNC C2000-072420 New synergistic antioxidant food supplement useful in the prevention of TIe.g. arteriosclerosis, cardiovascular diseases and bacterial and viral infections containing ascorbic acid and quercetin glucoside derivatives. B02 B03 D13 DC BUCHHOLZ, H; MEDUSKI, J IN (MERE) MERCK PATENT GMBH PΑ CYC 20 WO 2000012085 A1 20000309 (200020)* EN 19p A61K031-35 PΙ RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE W: JP US ADT WO 2000012085 A1 WO 1999-EP6166 19990823 PRAI US 1998-141781 19980827 IC ICM A61K031-35 ICS A23L001-30; A23L001-302; A61K031-375 WO 200012085 A UPAB: 20000426 AB NOVELTY - Oral composition containing ascorbic acid or ascorbate or its derivative in combination with one or more derivatives selected from quercetin-3-0-glucoside (isoquercetin), quercetin-4'-glucoside, quercetin-3'-glucoside and quercetin-7-glucoside. ACTIVITY - Antiarteriosclerotic; antiallergic; antiinflammatory, antibacterial; cytostatic; antiviral. No activity data given. MECHANISM OF ACTION - Antioxidant. USE - The composition is useful as a food supplement for maintaining long biological activity and high concentration of ascorbate and isoquercetin in human organs, especially skin, tissues and cells to

protect against oxidative damage. It is particularly useful in the prevention of arteriosclerosis, cardiovascular diseases, allergic and inflammatory disorders, bacterial and viral infections, metabolic dysfunctions e.g. premature aging and other pathologic conditions involving oxidative damage, as well as in the support of pharmacologic treatments of diseases and dysfunctions caused by oxidative damages (all claimed). The compositions are also useful in preventing and treating

certain forms of cancer.

ADVANTAGE - Isoquercetin effectively inhibits ascorbate oxidation and maintains the reduced form of ascorbic acid to maintain ascorbic acid levels in body tissues and fluids. Isoquercetin and ascorbate interact synergistically to give higher activities of both components.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-F; B06-A01; B14-A01; B14-A02; B14-C03; B14-E11; B14-F01; B14-F02; B14-F07; B14-G02A; B14-H01; B14-L06; B14-S08; B14-S09; D03-H01T

TECH UPTX: 20000426

TECHNOLOGY FOCUS - PHARMACEUTICALS - Isoquercetin is present in combination with ascorbic acid or of a physiologically active ascorbate in form of its sodium, calcium, other mineral or organic salts. Other ingredients can be present such as vitamins, Mg, Ca, K and Fe, trace elements. The composition contains ascorbic acid or ascorbate and isoquercetin in a 2:1-1:2 (preferably 1:1) molar ratio.

L144 ANSWER 6 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1999-581207 [50] WPIDS

DNC C1999-169292

TI Formulations containing isoquercitrin as an antiviral agent or skin protectant.

DC B02 B07 D21 E19

IN BUCHHOLZ, H; KRAUS, C; WAGNER, A; MEDUSKI, J

PA (MERE) MERCK PATENT GMBH

CYC 21

PI DE 19809304 A1 19990909 (199950) * 6p A61K007-42 WO 9944578 A1 19990910 (199950) DE A61K007-42 RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: CA JP US

ADT DE 19809304 A1 DE 1998-19809304 19980305; WO 9944578 A1 WO 1999-EP1104 19990220

PRAI DE 1998-19809304 19980305

IC ICM A61K007-42

ICS A61K007-027; A61K009-72; A61K031-35

AB DE 19809304 A UPAB: 19991201

NOVELTY - **Isoquercitrin** (I) is used in cosmetic or medicinal formulations.

ACTIVITY - Antiviral; skin protectant.

MECHANISM OF ACTION - None given.

USE - (I) is useful in the formulations as an antiviral agent (especially against herpes) and/or as an agent for protecting the skin against the sun's rays.

ADVANTAGE - (I) is well tolerated by the skin and does not cause significant toxic or allergic reactions.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-A; B03-F; B04-B01C1; B04-B03A; B04-B04M; B05-A03; B06-A01; B07-D13; B10-E02; B10-F02; B14-A02A3; B14-R05; D08-B09A; D09-E; E06-A01; E07-A02B; E07-D12; E07-D13B; E10-E02F1; E10-F02A2; E10-J02A2; E35-C; E35-K02

TECH UPTX: 19991201

TECHNOLOGY FOCUS - PHARMACEUTICALS - The formulation is in the form of (i) a salve, cream, milk, lotion, emulsion, oil, gel, stick or spray for application to the skin, (ii) a mouth, nose or inhalation spray or (iii) tablets, dragees, capsules, a syrup, a juice or drops. The composition may also comprise UV-A filters and/or UV-B filters. The UV filters are, e.g., a benzophenone, a benzoyl- or dibenzoyl-methane derivative of a cinnamic acid ester, a triazine, a salicylate, zinc oxide or titanium dioxide. The antiviral effect of (I) can be synergistically enhanced using antiviral materials such as 5-ethyl-deoxyuridine, quercetin, galangin, apigenin, propolis, isorhamnetin, carotenes, ascorbic acid, quercitrin, catechin, rutin or camphor oil. The formulation comprises



0.01-40 (especially 0.01-10) wt.% of (I). The amount of light filter present in the formulation is 0.01-40 wt.%. The amount of (I) is especially 0.1-90 wt.% (based on the total amount of light filter present in the formulation).

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - The formulation is in the form of (i) a salve, cream, milk, lotion, emulsion, oil, gel, stick or spray for application to the skin, (ii) a mouth, nose or inhalation spray or (iii) tablets, dragees, capsules, a syrup, a juice or drops. The composition may also comprise UV-A filters and/or UV-B filters. The UV filters are, e.g., a benzophenone, a benzoyl- or dibenzoyl-methane derivative of a cinnamic acid ester, a triazine, a salicylate, zinc oxide or titanium dioxide. The antiviral effect of (I) can be synergistically enhanced using antiviral materials such as 5-ethyl-deoxyuridine, quercetin, galangin, apigenin, propolis, isorhamnetin, carotenes, ascorbic acid, quercitrin, catechin, rutin or camphor oil. The formulation comprises 0.01-40 (especially 0.01-10)wt.% of (I). The amount of light filter present in the formulation is 0.01-40 wt.%. The amount of (I) is especially 0.1-90 wt.% (based on the total amount of light filter present in the formulation).

in the formulation). L144 ANSWER 7 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1999-470178 [40] WPIDS AN DNC C1999-138164 Use of flavone, flavanone or flavonoid compound for protection of ascorbic TIacid or ascorbyl compound against oxidation, especially in cosmetic and dermatological preparations,. B02 B03 B05 D21 E13 E19 DC KRUSE, I; SCHOENROCK, U IN (BEIE) BEIERSDORF AG PΑ CYC 26 DE 19807774 A1 19990826 (199940)* 18p A61K007-42 PΙ A2 19990929 (199945) DE A61K007-48 EP 945128 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI C07D307-62 JP 11279167 A 19991012 (199954) 16p DE 19807774 A1 DE 1998-19807774 19980224; EP 945128 A2 EP 1999-101745 19990211; JP 11279167 A JP 1999-41753 19990219 PRAI DE 1998-19807774 19980224 ICM A61K007-42; A61K007-48; C07D307-62 IC ICS A61K007-00; A61K007-06; A61K007-40; A61K031-375 DE 19807774 A UPAB: 19991004 AB NOVELTY - Use of a flavone (IA), flavanone (IB) and/or flavonoid (IC) to protect ascorbic acid or ascorbyl compounds against oxidation, including photo-oxidation is claimed. ACTIVITY - None given. MECHANISM OF ACTION - None given.

USE - In preparations for skin and hair care, especially hair colors, hair sprays and shampoos, as well as other cosmetics, e.g. nail varnish, lipstick and make up.

ADVANTAGE - Compared with known antioxidants, the use of (IA)-(IC) together with vitamin C or an ascorbyl compound provides an improved antioxidant and radical scavenging activity, better protection against inflammatory reactions and photo-reactions, an improved protective effect against the bonding of photo-products to lipids, DNA and proteins and a better effect against skin aging.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-F; B06-A01; B10-B01; B14-N17; B14-R01; B14-R02; B14-R05; B14-S08; D08-B09A; D09-E; E06-A01; E07-A02B; E10-B01C; E10-B02E; E10-C02A; E10-C02F

TECH UPTX: 19991004

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Method: (IA)-(IC) are used in cosmetic or dermatological preparations, preferably in a concentration of 0.01-10 wt.%, especially 0.05-5 wt.%, particularly 0.1-2 wt.%, based on

the finished preparation. The cosmetic or dermatological preparations may contain a complex former, especially tartaric acid, citric acid or an aminopolycarboxylic acid, e.g. ethylenediaminetetraacetic acid (EDTA), nitrilotriacetic acid, hydroxyethylenediaminotriacetic acid, diethyleneaminopentaacetic acid or trans-1,2-diaminocyclohexanetetraacetic acid, or an anion of any of these acids. The content of complex former is 0.01-10 wt.%, especially 0.05-5 wt.%, particularly 0.1-2 wt.%, based on the final preparation. When the preparations contain an ascorbyl compound, this is preferably an ascorbyl 1-25C alkyl ester, especially a fatty acid ester, particularly ascorbyl palmitate. Preferred Flavone: The flavone (IA) is flavone, flavonol, chrysin, qalangin, apigenin, fisetin, luteolin, kaempferol, quercetin, morin, robinetin, gossypetin or myricetin. Preferred Flavonoid: The flavonoid (IC) has formula (ICa) or (Icb): Z1-Z7 = H; OH; 1-18C alkoxy; or 1-18C hydroxyalkyl; Gly = mono- or oligoglycoside group. Especially preferred flavonoids are alpha-glucosylrutin, alpha-glucosylmyrictrin, alpha-glucosylisoquercitrin, alphaglucosylquercitrin, naringin, hesperidin, rutin, troxerutin, monoxerutin, dihydrorobinetin, taxifolin, eriodicotyol-7-glucoside, flavanomarein and isoquercitrin. alpha-Glucosylrutin is particularly preferred.

L144 ANSWER 8 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD AN 1999-470085 [40] WPIDS DNC C1999-138111 Combination of (acyl) carnitine and oxidant for use in skin care, TΙ effective e.g. against light-induced damage and inflammation. DC. MAX, H; SCHOENROCK, U; SCHREINER, V; STAEB, F; UNTIED, S; HEINER, M; IN UNTIEDT, S (BEIE) BEIERSDORF AG PΑ CYC 25 DE 19806890 A1 19990826 (199940)* 18p A61K007-48 PΙ EP 945126 A2 19990929 (199945) DE A61K007-48 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI A1 20000330 (200023) A61K007-48 DE 19861145 DE 19806890 A1 DE 1998-19806890 19980219; EP 945126 A2 EP 1999-101742 ADT 19990211; DE 19861145 A1 Div ex DE 1998-19806890 19980219, DE 1998-19861145 19980219 FDT DE 19861145 Al Div ex DE 19806890 PRAI DE 1998-19806890 19980219; DE 1998-19861145 19980219 ICM A61K007-48 IC ICS A61K007-42 AB DE 19806890 A UPAB: 19991004 NOVELTY - An active agent combination comprises: (A) at least one of carnitine and acyl carnitines; and (B) at least one antioxidant, preferably a flavone and/or flavanone derivative, especially a flavonoid. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for cosmetic or dermatological preparations containing (A) and (B). ACTIVITY - Skin protectant; dermatological; hair growth stimulant; antiinflammatory.

USE - For skin care and protection, specifically for the treatment or prevention of: deficiency, sensitive or hypoactive skin conditions; visible signs of aging such as wrinkles, spots or teleangiectasis; skin damage caused by environmental agents (e.g. smoke, smog, active oxygen species or free radicals) or especially light; pigmentation disorders; pruritis; dry skin states and barrier dysfunction; hair loss and hair growth deficiency; and inflammatory skin disorders such as atopic or seborrheic eczema, polymorphic photodermatosis, psoriasis and vitiligo. (I) is also useful for topical pre- or post-treatment of patients before laser or abrasion treatment (e.g. to remove wrinkles or scars), to reduce

and DNA synthesis stimulant; cell replication and regeneration promoter.

MECHANISM OF ACTION - Antioxidant; collagen, hyaluronic acid, elastin

ADVANTAGE - The combination of (A) and (B) has a lasting effect

inflammation and promote skin regeneration.

FS

FΑ

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AN

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against a wide range of UV-induced and other skin disorders, and is free of side-effects. It soothes sensitive or irritated skin; stimulates synthesis of collagen, hyaluronic acid and elastin; stimulates intracellular DNA synthesis, especially in deficiency or hypoactive states of the skin; promotes cell replication and skin regeneration; and promotes the intrinsic protective and reparative mechanisms of the skin (e.g. to counteract dysfunctional enzymes, DNA, lipids or proteins). Dwg. 0/0 CPI AB; DCN CPI: B06-A01; B10-A22; B14-C03; B14-N17; B14-S08; D08-B03; D08-B09A TECH UPTX: 19991004 TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The acylcarnitine is acetylcarnitine. The flavone derivative is alpha-glucosylrutin, naringin, hesperidin, rutin, troxerutin, monoxerutin, dihydrorobinetin, taxifolin, eriodictyol-7-glucoside, flavanomarein, quercetin or isoquercitrin. Preferred Composition: The molar ratio of (A) to (B) is 1-10:10-1, especially 1-2:2-1. The pharmaceutical or dermatological compositions contain 0.001-10 wt.% each of (A) and (B). L144 ANSWER 9 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1999-348386 [30] WPIDS DNC C1999-102794 Use of flavone derivatives in cosmetic or dermatological compositions. B07 D21 E13 E14 GERS-BARLAG, H; SCHEEL, O (BEIE) BEIERSDORF AG 2 A1 19990617 (199930)* 13p A61K007-44 DE 19755504 A61K031-12 US 5952391 A 19990914 (199944) DE 19755504 A1 DE 1997-19755504 19971213; US 5952391 A US 1998-205435 19981204 PRAI DE 1997-19755504 19971213 ICM A61K007-44; A61K031-12 DE 19755504 A UPAB: 19990802 NOVELTY - Flavone derivatives (e.g. quercetin) are useful as additives for cosmetic and dermatological compositions, in order to stabilize dibenzoylmethane compounds used as ultraviolet light absorbers. DETAILED DESCRIPTION - The use of flavone and flavonone derivatives (preferably flavonoids) is claimed for stabilizing substances present in cosmetic and dermatological compositions against ultravi6let-induced decomposition. These substances have a dibenzoylmethane structure. USE - The flavones are useful as stabilizers for dibenzoylmethane sunscreens. ADVANTAGE - Dibenzoylmethane compounds (e.g. 4-(tert.-butyl)-4'methoxydibenzoylmethane) are known to be effective as sunscreens, but they are unstable in the presence of UV light. Known stabilizers for these compounds include 4-methylbenzylidene campher, but this compound is difficult to formulate. The use of flavones as stabilizers overcomes this disadvantage, and provides drastically improved UV stability for 4-(tert.-butyl)-4'-methoxydibenzoylmethane, regardless of whether this compound is dissolved in polar or unpolar oils. Dwg.0/0 CPI AB; DCN CPI: B06-A01; B10-F02; B12-M06; B14-R01; B14-R05; B14-S08; D08-B; E06-A01; E10-F02A2 TECH UPTX: 19990802 TECHNOLOGY FOCUS - PHARMACEUTICALS - The flavone derivatives are selected from rutin, troxerutin, monoxerutin, dihydrorobinetin, taxifolin, eriodictyol-7-glucoside, quercetin, isoquercetrin, fisetin, luteolin, robinetin, gossypetin and myricetin. The flavone compounds are present in a concentration of 0.01-10 (preferably 0.1-5, especially 0.2-2.0) wt. %.

The dibenzoylmethane compound, which is selected from 4-

isopropyldibenzoylmethane and 4-(tert.-butyl)-4'-methoxydibenzoylmethane,

is present at a concentration of 0.1-10.0 (preferably 0.5-6.0) wt. \$. The ratio of flavone compound to dibenzoylmethane compound is 8:1-1:5 (preferably 4:1-1:2, especially 3:1-1:1).

L144 ANSWER 10 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

N 1999-338816 [29] WPIDS

DNC C1999-099842

TI Cosmetic or dermatological preparation containing isoquercitrin as antioxidant and radical scavenger, useful for protection of skin or hair.

DC B02 D21 E13

IN KEYHANI, R; MAX, H; SCHOENROCK, U; STAEB, F

PA (BEIE) BEIERSDORF AG

CYC 1

PI DE 19753983 A1 19990610 (199929)* 11p A61K007-42

ADT DE 19753983 A1 DE 1997-19753983 19971205

PRAI DE 1997-19753983 19971205

IC ICM A61K007-42

ICS A61K007-027; A61K007-48

AB DE 19753983 A UPAB: 19990723

NOVELTY - Use of isoquercitrin (I) (i.e. 3,3',4',5,7-

pentahydroxyflavanone 3-(beta -D-glucopyranoside)) as antioxidant and/or radical scavenger in cosmetic or dermatological preparations.

ACTIVITY - Anti-inflammatory; antiallergic; dermatological.

MECHANISM OF ACTION - Antioxidant; radical scavenger.

USE - (\dot{I}) is useful for:

- (1) treatment or prophylaxis of erythematous, inflammatory, allergic or autoimmune skin disorders, especially dermatoses, associated with undesirable oxidation processes;
- (2) treatment or prophylaxis of light-sensitive skin, especially to combat photodermatosis;
 - (3) prevention of oxidation-induced skin aging;
- (4) protection of hair against oxidative damage caused by UV radiation or by oxidizing agents (e.g. hydrogen peroxide) used in treatments such as dyeing or bleaching; and
- (5) protection of the components of cosmetic, make-up or dermatological preparations against oxidative or photo-oxidative degradation during storage.

ADVANTAGE - (I) is more stable in cosmetic or dermatological preparations than comparable prior art agents (e.g. vitamin C), and has good activity against oxidation, radicals, binding of harmful photochemical products to lipids DNA and proteins, skin aging, photochemical reactions in skin and inflammatory reactions. Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B06-A01; B14-C03; B14-G02; B14-N17; B14-R01; B14-R02; D08-B03; D08-B09A; E06-A01

L144 ANSWER 11 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1998-521261 [44] WPIDS

DNC C1998-156666

TI Security paper which forms an indelible colour on contacting organic solvent - comprising a metal mordant and mordant dye, useful in preventing fraud by altering official documents, cheques, identity documents etc..

DC E19 E24 F09 G04

IN RITTENHOUSE, D A

PA (GEOP) GEORGIA PACIFIC CORP

CYC 80

PI WO 9841688 A1 19980924 (199844) * EN 18p D21H021-46

RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL (IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

AU 9866971 A 19981012 (199907) D21H021-46 WO 9841688 A1 WO 1998-US4732 19980312; AU 9866971 A AU 1998-66971 19980312 ADT FDT AU 9866971 A Based on WO 9841688 19970314 PRAI US 1997-819565 ICM D21H021-46 IC AB 9841688 A UPAB: 19981104 A security paper which forms/an indelible colour when contacted with an organic solvent comprising/a web of cellulosic fibres, the web containing a metal mordant chemically isolated from a mordant dye capable of forming a covalent bond with the metal mordant to produce an organic solvent-insoluble coloured reaction product which remains entrapped in the web when the paper is washed with an organic solvent. Also claimed is making the above security paper by contacting a cellulose fibres paper substrate with a metal mordant, contacting the substrate with a mordant dye capable of forming a coordinate covalent bond with the metal mordant to produce an organic solvent-insoluble coloured reaction product, wherein one of the reactants is isolated from the other by encapsulation with a water-insoluble and organic solvent-soluble material, whereby the coloured reaction product remains entrapped in the substrate when the substrate is washed with an organic solvent. Preferably one of the reactants is isolated from the other on the web by encapsulation with a water-inspluble and organic solvent-soluble material. The metal mordant has pKa above 8. It is selected from Fe, Mn, Sn, Ni, Ca, Al, Cu, Cd, Cr, Co, Pb, Hg and Mg. The mordant dye is selected from alizarine blue, alizarine orange, alizarine yellow, aluminon, 1-aminoanthraquinone-2-carboxylic acid, o-aminiobenzoic acid, 3-amino-2-naphthoic acid, 1/amino-2-naphthol-4-sulphonic acid, ampelopsin, anacardic acid, anthragallol, bacalein, 5-bromoanthranilic acid, 3'-carboxy-4'hydroxycinchophen, carminic acid, catechin, o-cresotic acid, delphinidin chloride, 2,3-diaminophenazine, 2,4-diaminophenol, digallic acid, dimethylglyoxime, echinochrome, ''eriochrom black T'' (RTM), eriodictyol, ethyl thiocyanate, ferrocyanidion, fisetin, flavone, fustin, gallacetophenone, gallamide, gallein, gallic acid, gentisic acid, alpha-glucogallin,/beta-glucogallin, gossypol, hematein, hematoxylin. USE - The security paper is useful for handwritten payment vouchers, official documents eg. bank cheques, travellers cheques, identity documents, eg. passports etc. ADVANTAGE - The security paper is compatible with commercial papermaking techniques and forms an indelible colour when treated with an organic solvent, thus preventing fraud by clearly indicating the chemical removal of ink from the paper by dissolution in organic solvents. Dwg.0/0 CPI FS AB; DCN FΑ MC CPI: E25; F05-A06D; G04-B L144 ANSWER 12 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1998-002833 [01] WPIDS AN DNC C1998-001128 Stamina-enhancing drinks and foods - contain extract from Crataegus plant, TI Rosaceae. DC D13 (MEIJ) MEIJI SEIKA KAISHA LTD PΑ CYC 1 JP 09266767 A 19971014 (199801)* 5p A23L001-30 ΡI ADT JP 09266767 A JP 1996-77700 19960329 PRAI JP 1996-77700 19960329 ICM A23L001-30 ICS A23L002-38; A23L002-52 ICA A61K035-78 JP 09266767 A UPAB: 19980107 Drinks and foods contain 1-10% extract from a Crataegus plant, Rosaceae.

The extract is prepared by extracting the plant with water or ethanol and purifying the extract to obtain a low polar fraction. The extract contains at least 1 tannin, such as chlorogenic acid and epicatechin, and flavone glycosides, such as rutin, isoquercitrin and hyperin.

The foods and drinks contain at least 1 extract of hydrangia, Zizyphi Fructus, Glycyrrhizae Radix, 'Rakanka' (Chinese herb), Lycium chinense Mill., Solanaceae, Cinnamomi Cortex, Zizyphi Spinosi Semen, Gardeniae Fructus, Coix lacryma-jobi L. var. ma-yuen Stapf, Gramineae, An gelica keiskei Koidz., Umbelliferae, Isodonis Herba, the leaf of Diospyros kaki Thumb., Ebenaceae, 'Soba' (Chinese herb), german chamomile, Aurantii Pericarpium, Sasa albo-marginata and 'Amachazuru' (Cucurbitaceae plant, Chinese herb).

USE - The drinks and foods enhance stamina.

ADVANTAGE - The foods and drinks give a fresh feel on drinking. The combination with crude drugs masks acidic taste, improves flavour and facilitates food intake.

Dwg.0/2

FS CPI

FA AB

MC CPI: D03-H01G; D03-H01T2

L144 ANSWER 13 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1997-266467 [24] WPIDS

DNC C1997-085670

TI Foods and drinks for eradicating active oxygen and free radicals - contain flavonol glycoside readily soluble in water.

DC B04 D13

PA (SANE-N) SANEIGEN FFI KK

CYC :

PI JP 09094077 A 19970408 (199724)* 4p A23L001-30

ADT JP 09094077 A JP 1995-253458 19950929

PRAI JP 1995-253458 19950929

IC ICM A23L001-30

ICS A23L001-03; A23L002-52; A61K031-35

AB JP 09094077 A UPAB: 19970612

Foods and drinks eradicating active oxygen and/or free radical contain a flavonol glycoside readily soluble in water. The flavonol glycoside includes quercetin monoglycoside, quercetin diglycoside, myricetin, monoglycoside and myricetin diglycoside, which is made by rearrangement of glucose or galactose residue.

The flavonol glycoside, e.g. quercetin-3-0-glycoside, may be prepared as follows: a suspension of 500 g rutin and 50 g naringinase in 100 L. water is kept at 50 degrees C. for 5 hours to yield 320 g isoquercitrin; this is mixed with 100 L. water, to which 800 g corn starch is added, and the mixture is kept at 55 degrees C. and pH 6.8 for 12 hours and then applied to a resin column (Dia-ion PH-21) to yield 550 g quercetin-3-0-glycoside.

USE - The foods and drinks remove active oxygen and free radicals which mediate a variety of diseases and ageing. The foods and drinks include Japanese cakes (e.g. rice cracker, candy), western cakes (e.g. cookies sponge cakes, waffle, pudding, butter cream, chocolate, candy, chewing gum, jelly), snacks (e.g. potato chip), popsicle (e.g. ice cream), lactic acid drinks, fruit juice, coffee, cocoa, tea, wine, beer, cheese soybean curd, pickles, delicatessen (e.g. ham, sausage), fish products (e.g. boiled fish paste, tube-shaped fish paste cake), etc., to which was added the flavonol glycoside in 0.001-5 wt.% preferably 0.01-2 wt.%.

ADVANTAGE - In an active oxygen and free radical eradication test, quercetin-3-0-glycoside has IC50 = 44 micro M and 36 micro M, respectively (cf. IC50 = 51 micro M and 43 micron M in rutin).

EXAMPLE - To a mixture of 12 wt.% fruit sugar/glucose, 0.1% citric acid and 0.1% flavour was added 0.1%, 0.5% or 5% quercetin-3-0-glycoside, and each mixture was filtered and sterilised to give 0.1%, 0.5% or 1% drink, respectively.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B06-A01; B14-E11; D03-H01T2

L144 ANSWER 14 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD AN 1997-149797 [14] WPIDS

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1993-284686 [36]
CR
DNC C1997-047997
     Compsn composed of water-soluble quercetin derivs - comprises enzymatic
ΤI
     treatment of mono glucosyl rutin and rutin, useful as antiinflammatory or
     anodyne agent for pharmaceuticals and cosmetics.
DC
     B02 D16 D21 E13
PA
     (TOSE-N) TOYO SEITO KK
CYC 1
                                                     C07H017-07
     JP 09025288 A 19970128 (199714)*
                                               9p
PΙ
ADT JP 09025288 A Div ex JP 1991-63358 19910327, JP 1996-173495 19910327
PRAI JP 1991-63358
                      19910327; JP 1996-173495
IC
     ICM C07H017-07
     ICS C07H001-00; C12P019-44
     JP 09025288 A UPAB: 19970407
AB
     Monoglucosyl rutin is sepd. (a) by reacting alpha-1,6-rhamnosidase on a
     mixt. of monoglucosyl rutin and rutin, next, by sepg. monoglucosyl rutin
     from the reaction mixt.; and (b) by reacting glucoamylase and
     alpha-1,6-rhamnosidase simultaneously or separatively on the mixt. of
     alpha-glucosylated rutin and rutin, next, by sepg. monoglucosyl rutin from
     the reaction mixt..
         More specifically, the monoglucosyl rutin is sepd. from the mixt. of
     monoglucosyl rutin and isoquercitrin by crystallisation from
     alcohol.
          USE/ADVANTAGE - High purity monoglucosyl rutin is sepd. efficiently
     from the mixt. of alpha-glucosyl rutin and rutin.
          In an example, a 100g mixt. of alpha-glucosylated rutin and rutin was
     dissolved in a 1000ml water. To this, 1g ascorbic acid and 1g glucozyme
     were added. pH was adjusted at 4.5, and reacted, at 55 deg.C for 24 hours.
     To the reaction soln., 1g hesperidinase No.2 (Tanabe Seiyaku Co.) was
     added, pH was adjusted at 4.0, and reacted at 55 deg.C for 24 hours. The
     reaction soln. was inactivated by heating next, by treating with 1000 ml
     XAD-7, then after washing with water, treated with 2000 ml of 60% ethanol
     and 1000 ml water. Both solns. were combined, concn. 47g solid (purity
     65%) was obtd.. This was recrystallised from 80 ml of 99% methanol. 25g Of
     solid (purity 93%) was obtd..
     Dwg.0/01
    CPÍ
FS
    AB; DCN
FΑ
     CPI: B06-A01; B12-M05; B14-C02; B14-R01; D05-A02C; D08-B; E06-A01
MC
L144 ANSWER 15 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
    1997-115173 [11]
                       WPIDS
AN
DNC C1997-036874
     Polyphenol prepn. used as antioxidant in foods, cosmetics and medicines -
ΤI
     comprises extracting hops, passing through gel-type synthetic adsorbent,
     washing and eluting with ethanol.
     B04 D13 D21
DC
     (ASAK) ASAHI BREWERIES LTD
PA
CYC 1
     JP 09002917 A 19970107 (199711)*
                                            5p A61K007-00
PΙ
ADT JP 09002917 A JP 1995-173931 19950619
PRAI JP 1995-173931
                      19950619
     ICM A61K007-00
IC
ICA A23L003-349; A61K031-05
     JP 09002917 A UPAB: 19970313
AB
     Prodn. of polyphenol prepn. comprises extracting hop (pref. strobile) or
     the bract to give a water-soluble fraction; passing the fraction through a
     qel-type synthetic adsorbent; washing with water or aq. ethanol and
     eluting with EtOH or aq. EtOH.
          Also claimed is a polyphenol prepn. obtained by the above method.
          Polyphenol prepn. pref. contains 5-50 wt.% flavonoid glycoside such
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cosmetics and medicines.

In an example, hop (20g.) was pulverised in a mortar, extd. with 50 wt.% aq. EtOH at 80 deg.C for 20 min., filtered and cooled. The extract

USE - The prepn. is useful as an antioxidant and used in foods,

as rutin or isoquercitrin.

FS

FΑ

MC

ΑN

TТ

DC:

PA CYC

PΙ

IC

AB

FS

FΑ

MC

ΑN DNC

TI

DC ΙN

PA CYC

PΙ

ADT

IC

19920601

ICM A01N043-04

ICS A61K031-715; C07G003-00; C07H015-00

was passed through a column of styrene-divinylbenzene resin, washed with water, eluted with 80 wt.% aq. EtOH (400 ml.) and lyophilised to give 600 mg. of polyphenol prepn. as odourless and bitter-tasting powder. The prepn. contained 46.4 wt.% catechin, 12.2 wt.% of rutin and 8.7 wt.% isoquercitrin. The prepn. showed a DPPH radical scavenging activity of 7.79 micromol/mg., compared with 4.01 micromol/mg. for alpha-tocopherol. Dwq.0/0CPI AB; DCN CPI: B04-C03D; B14-R01; B14-S08; D03-H01P; D08-B11 L144 ANSWER 16 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1996-306479 [31] WPIDS DNC C1996-097597 Analgetic and antiinflammatory agent for treating headache and cancer analgesia - comprises aq. layer component obtd. by partitioning alcohol extract of Maytenus ilicifolia between water and chloroform. (NIMF) NIPPON MEKTRON KK JP 08133981 A 19960528 (199631)* 5p A61K035-78 ADT JP 08133981 A JP 1994-295546 19941104 PRAI JP 1994-295546 19941104 ICM A61K035-78 ICS A61K031-70; C07H017-07 JP 08133981 A UPAB: 19960808 Analgetic and antiinflammatory agent comprises aq. layer component obtd. by partitioning an alcohol extract of Maytenus ilicifolia between water and chloroform. The effective component pref. comprises quercetin-3-0-glucoside. ADVANTAGE - The extract is safe. The agent is useful for headache, abdominal pain and neuralgia, but also for cancer algesia. In an example, dried Maytenus ilicifolia (3.2 kg) was extracted at reflux temp. with methanol 930 1) two times. The solvent was distilled off to give a methanol extract (153.3 g). The extract was partitioned between water and chloroform. The aq. layer was concentrated to give a yellowish brown powder (82.9 g). A soln. of the powder in water (300 ml) was chromatographed using a styrene/divinylbenzene copolymer resin (Daiaion ${\tt HP-20,\ RTM})$ to 4 fractions (100 ml, respectively). The fraction eluted with 100 % methanol (4.5 g) was active. That fraction was column chromatographed (Sephadex LH-20 (100 g eluent: methanol) to give 120 fractions (100 ml, respectively). The 43-55th fractions were conc. to give a yellow powder (15.4 mg) which was identified as quercetin-3-0-glucoside. Dwg.0/4 CPI AB; DCN CPI: B06-A01; B14-C01; B14-C03; B14-H01B L144 ANSWER 17 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1996-057711 [06] WPIDS C1996-019155 Improving calcium absorption into bone - by oral admin. of calcium and flavonol aglycone glycoside, opt. as herbal extract, partic. for treatment of osteoporosis. B05 D21 SAWRUK, S (BIOD-N) BIODYN MEDICAL RES INC 1 US 5478579 A 19951226 (199606)* A01N043-04 4p US 5478579 A CIP of US 1991-651189 19910206, CIP of US 1992-897003 19920601, US 1993-95738 19930721 19930721; US 1991-651189 19910206; US 1992-897003 PRAI US 1993-95738

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AB
          5478579 A UPAB: 19960212
     Calcium absorption into mammalian bone tissue is induced and enhanced by
     periodic oral admin. of a compsn. contg. (1) a flavonol aglycone glycoside
     (I); (2) nutritional calcium and (3) excipients.
          Also new are the compsns. themselves, opt. also contg. K gluconate
          The glycosides are derived from the aglycones quercetin, kaempferol,
     myricetin and isorhamnetin, partic. isoquercitrin (Ia).
          (I) may be provided in herbal extracts, e.g. of arnica montana,
     crataegifolium, farfarae flos, primulae flos, pruni spinosae flos, sanbuci
     flos, tiliae flos, petulae flioum, anserinae, equisetrum arvense,
     vigaureae and viola tricoloris.
          USE - The compsns. are partic. used in treatment of osteoporosis but
     can also be used to strengthen teeth and nails.
          Daily doses are 50-250 mg (I); 500-1500 mg Ca and opt. 50-250 mg
     (II). Compositions are conventional tablets, capsules or liq.
     formulations.
          ADVANTAGE - (I) probably act as chelating agents for efficient
     transport of Ca to bone tissue.
     Dwg.0/0
FS
     CPI
     AB; DCN
FΑ
     CPI: B04-A08C2; B04-A10; B05-A01B; B06-A01; B14-N01; B14-N06; D08-A
MC
                                             DERWENT INFORMATION LTD
L144 ANSWER 18 OF 34 WPIDS COPYRIGHT 2000
     1995-077960 [11]
                        WPIDS
ΑN
DNC C1995-035023
TΤ
     Peroral hair-nourishing agent - comprising alpha-glucosylated rutin,
     prevents hair loss and greying.
DC.
     B04 D21
     (TOSE-N) TOYO SEITO KK
PΑ
CYC
                 A 19950106 (199511)*
                                               7p
                                                     A61K031-70
     JP 07002677
PΤ
ADT JP 07002677 A JP 1993-147223 19930618
PRAI JP 1993-147223
                      19930618
     ICM A61K031-70
IC
     ICS A61K007-06
     C07H017-07
ICA
AB
     JP 07002677 A UPAB: 19950322
     Peroral hair-nourishing agent comprises alpha-glucosyalted rutin.
          (1) Alpha-glucosyalted rutin, and (2) at least 1 of rutin, quercetin,
     isoquercitrin, hesperidin, naringin, methylhesperidin, and
     flavonoid cpds. comprising trans-glycosidated derivs..
          USE - The peroral hair-nourishing agent is used for nourishing
     hair, and preventing hair loss or greying.
          In an example, (1) 110g of alpha-glucosylated rutin (''Alpha-G rutin
     PS'' contg. 82% of rutinon a converison basis) 3000g lactose, 40g tartaric
     caid, and 5g stearic acid were mixed with addn. of 5% concn. starch paste
     aq. soln. as binder. Then themixed mateial was formed into tablets of 0.3g
     wt. per tablet. 10 mg of alpha-G rutin PS (8.2 mg of rutin on conversion
     basis) was contained in one tablet of the agent.
          (2) 30g of alpha-G rutin P (contg. 42% of rutin on conversion basis),
     2.4 ml of orange oil, 0.6 ml oflemonoil, 0.24 ml of coriander, and 375 ml
     of single syrup were mixed with addn. of mixt. of ethanol/purified
     distilled wate r(ethanol\ content = 22\%). 1 ml of the soln. contained 0.03g
     of alpha-G rutin P (12 mg of rutin on conversion basis).
     Dwg.0/0
FS
     CPT
     AB; GI; DCN
FΑ
     CPI: B06-A01; B14-R02; D08-B03
MC
L144 ANSWER 19 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
     1994-252686 [31]
                        WPIDS
AN
DNC
    C1994-115297
ΤI
     Oral compsn. contg. water-soluble glycoside derivs. - have collagenase
     inhibitory activity and are used to treat periodontal disorders.
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DC
     B02 D21 E13
PA
     (LIOY) LION CORP
CYC
ΡI
                 A 19940705 (199431)*
                                                     A61K007-16
     JP 06183941
                                               q8
ADT JP 06183941 A JP 1992-356341 19921221
PRAI JP 1992-356341
                      19921221
IC
     ICM A61K007-16
     ICS C07D311-30
AB
     JP 06183941 A UPAB: 19940921
     Compsns. for use in oral cavity comprises water-soluble glycoside derivs.
     of formula (I). R1 = glucose or rhamnose residue, R2 = rhamnose residue or
     H, R3 = glucose residue, R4-R6 = OH, H, n = 1-5.
          (I) are pref. alpha-glucosyl rutin, alpha-glucosyl-myrictrin,
     alpha-glucosyl-isoquercitrin and alpha-glucosyl quercitrin. (I)
     is pref. present in compsns. in amt. of 0.1-1%.
          Toothpaste pastes contg. (I) can involve grinding agents, binders,
     viscosity-increasing agents, surfactants, sweeteners, preservatives,
     colouring agents and other effective components.
          USE/ADVANTAGE - (I) possess collagenase inhibitory activity and
     prevent the destruction of collagen and progress of local inflammations of
     the gingiva and connective tissues. The compsns. are useful in the
     prevention and treatment of periodontal disorders.
          In an example, a toothpaste was prepd. by mixing 45% Al(OH)3, 2%
     silica gel for gelation, 25% sorbit, 1% CMC Na, 1% sucrose mono:palmitate,
     1.5% Na laurate, 0.2% saccharin Na, 0.1% Na benzoate, 0.1%
     alpha-glucosyl-rutin, 0.2% Me salicylate, 0.1% eugenol and water.
     Collagenase inhibition potencies of (I) were 78.1-95.9% and 93.1-100.0% at
     0.05 mM and 0.25 mM respectively, which were shown to be equal or superior
     to those of tetracyclines (42.4 and 88.6%).
     Dwg.0/0
FS
     CPI
FΆ
     AB; GI; DCN
     CPI: B04-C02X; B06-A01; B14-D07C; B14-N06B; D08-A; E06-A01
MC.
L144 ANSWER 20 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
     1994-252685 [31]
                        WPIDS
AN
DNC C1994-115296
     Compsn. for cleaning teeth - comprises a flavone selected from
ΤI
     isoquercitrin, myristarin and iso rhamnetin.
DC.
     D21 E15
     (LIOY) LION CORP
PA
CYC 1
                 A 19940705 (199431)*
                                                     A61K007-16
     JP 06183940
                                               6p
PΙ
ADT JP 06183940 A JP 1992-356340 19921221
PRAI JP 1992-356340
                      19921221
IC
     ICM A61K007-16
AB
     JP 06183940 A UPAB: 19940921
     Mouth cleaning compsn. comprises, at least, a flavone selected from
     isoquercitrin, myristorin and iso-rhamnetin. The flavonol content
     is pref. 0.01-1 wt.%.
          USE - Used for cleaning teeth.
     Dwg.0/0
     CPI
FS
     AB; GI; DCN
FA
MC.
     CPI: D08-B08; E06-A01
L144 ANSWER 21 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
     1993-365156 [46]
                        WPIDS
AN
DNC C1993-161848
     Active oxygen eliminating agents - contain super-oxide dismutase like
TΙ
     substance, phenolic cpd. and sugar cpd..
DC
     B04 D21
     (KATO-I) KATO K; (NAKA-I) NAKANO M; (RUIB-N) RUIBOSUTI JAPAN KK
PA
CYC
PΙ
     JP 05271090
                   A 19931019 (199346)*
                                               4p
                                                     A61K035-78
ADT JP 05271090 A JP 1991-359878 19911227
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PRAI JP 1991-359878 19911227 ICM A61K035-78 ICS A61K031-00 JP 05271090 A UPAB: 19940103 AB Agents contq. a superoxide dismutase (SOD) like substance, a phenolic cpd., partic. one or more of guaiacol, phenol, eugenol and phenylethanol, and a sugar cpd. such as a glycoprotein and glycoflavonoid, partic. one or more asparatin, orientin (lutexin), cisorientin (lutonaretin), isoquercitin, rutin and quercetin. The compsns. contain 10,000-100,000 U/L of SOD-like substance, 0.1-10 mg/L of sugar cpd., 0.5-10 mg/ml of proteinous substances, 0.1-5 mg/L of phenolic cpd., and may further contain antioxidants (e.g. vitamin C and E, uric acid, glutathione and beta-carotene) and 10-500 mg/L of minerals (e.g. P, Fe, Ca, Na, K, Mg, Cu, Zn, Mn and Se). The compsns. are administered at 2-40 mg/kg/day. USE/ADVANTAGE - Treatment of skin diseases (e.g. wart, acne and dermatitis) and allergic diseases supposed to be caused by active oxygen. In an example, a soln. contg. 0.1-10 mg/L of glycoflavonoid, 0.5-10 mg/ml of protein and 0.1-5 mg/L of phenolic cpds. was adjusted to give 20,000 U/g of SOD-like and antioxidant activity and diluted to contain 0.1mg/ml. The resultant soln. was orally administered at 300-500 ml/day for two weeks to 10 patients with diseases related to free radicals, 20 patients with bacterial and viral diseases and 18 patients with intractable skin diseases, respectively, and effective in eight, 15 and 13 patients, respectively, and ineffective in two, five and five patients, respectively. Dwg.0/0 FS CPI AB; DCN FΑ CPI: B04-B02C2; B12-A07; D08-B09A MC L144 ANSWER 22 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1993-365154 [46] AΝ WPIDS DNC C1993-161846 Tissue lesion improving compsns. against skin and immune diseases -TΙ contain super oxide dismutase like substance, phenolic cpd.. DC B05 D21 (KATO-I) KATO K; (NAKA-I) NAKANO M; (RUIB-N) RUIBOSUTI JAPAN KK PΑ CYC 1 3p A61K035-78 JP 05271088 A 19931019 (199346)* ΡI ADT JP 05271088 A JP 1991-359875 19911227 PRAI JP 1991-359875 19911227 ICM A61K035-78 IC ICS A61K031-00 JP 05271088 A UPAB: 19961021 AB Tissue lesion improving compsns. contain a superoxide dismutase (SOD) like substance, a phenolic cpd., partic. one or more of guaiacol, phenol, eugenol and phenylethanol, and a sugar cpd. such as a glycoprotein and glycoflavonoid, partic. one or more asparatin, orientin (lutexin), cisorientin (lutonaretin), isoquercitin, rutin and quercetin. The compsns. contain 10,000-100,000 U/L of SOD-like substance, 0.1-10 mg/L of sugar cpd., 0.5-10 mg/ml of proteinaceous substances, 0.1-5 mg/L of phenolic cpd., and may further contain antioxidants (e.g, vitamin C and E, uric acid, glutathione and beta-carotene) and 10-500 mg/L of minerals (e.g, P, Fe, Ca, Na, K, Mg, Cu, Zn, Mn and Se). USE/ADVANTAGE - Treatment of skin diseases (e.g. warts, acne and dermatitis) and allergic diseases. The compsns. are administered at 2-40 mg/kg/day. In an example, a soln. contq. 0.1-10 mg/L of glycoflavonoid, 0.5-10 mg/ml of protein and 0.1-5 mg/L of phenolic cpds. was adjusted to give 20,000 U/g of SOD-like and antioxidant activity and diluted to contain 0.1 mg/ml. The resultant soln. was orally administered at 300-500 ml/day for two weeks to 10 patients with diseases related to free radicals, 20 patients with bacterial and viral diseases and 18 patients with

intractable skin diseases, respectively, and effective in eight, 15 and 13 patients, respectively, and ineffective in two, five and five patients,

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respectively.
     Dwg.0/0
     Dwg.0/0
FS
     CPI
     AB; DCN
FA
     CPI: B04-B02C2; B04-B04A6; B06-A01; B10-E02; B10-E04A; B12-A07; B12-D02;
MC
          D08-B09A
L144 ANSWER 23 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
AN
     1992-327504 [40]
                        WPIDS
    C1992-145521
DNC
     Antiviral agent contq. quercetin or isoquercetin - derived from Houttuynia
ΤI
     cordata Thunberg, Gossypium, etc., for treating hepatitis B infections.
DC
     (FJRE) FUJI REBIO KK
PΑ
CYC
    1
                 A 19920824 (199240)*
                                               3p
                                                     A61K031-35
PI
     JP 04234320
     JP 04234320 A JP 1990-415483 19901228
ADT
PRAI JP 1990-415483
                      19901228
IC
     ICM A61K031-35
     ICS A61K031-70
     C07D311-30; C07H017-07
ICA
     JP 04234320 A UPAB: 19931115
     Anti-HBV agent contains a cpd. of formula (I) as an active ingredient.
     (where x = H or glucose).
          Pref. quercetin (X = H) or isoquercitrin (X = glucose) is
     obtained from Houttuynia cordata THUNBERG, Gossypium, etc.
          USE/ADVANTAGE - Cpd. (I) is useful for the treatment of hepatitis B
     and is readily available. Daily dose for an adult is 0.01-10g orally or
     0.1-1g parenterally.
          In an example, HBV producing hepatocyte HB-611 was inoculated in
     Dulbecco modified Eagle medium (contg. 10% fetal bovine serum, G418 200
     micro/ml, penicillin 100 micro/ml and streptomycin 100 micro/ml) at 5 x 10
     power 4 cells/well and incubated at 37 deg. C under 5% CO2. After 3 days,
     (I) was added to the wells, incubated for 15 days and centrifuged. HBs in
     the supernatant was determined by ELISA. The cells were treated with
     pronase, then with phenol chloroform and pptd. with EtOH to recover DNA.
     DNA was analysed by Southern blot technique.
     0/0
     Dwg.0/0
FS
     CPI
FΑ
     AB; GI; DCN
     CPI: B06-A01; B12-A06; B12-G02
MC
L144 ANSWER 24 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
ΑN
     1992-157345 [19]
                        WPIDS
TI
     New prevention of browning of ascorbic acid - by blending with flavonoid
     glucoside(s).
DC
     B03 D13 D16 E13
     (SANE) SAN-EI CHEM IND LTD
PA
CYC
     JP 04099771
                  A 19920331 (199219)*
                                               4p
PΙ
     JP 3016835
                   B2 20000306 (200016)
                                               4p
                                                     C07D307-62
     JP 04099771 A JP 1990-217895 19900819; JP 3016835 B2 JP 1990-217895
ADT
     19900819
     JP 3016835 B2 Previous Publ. JP 04099771
PRAI JP 1990-217895
                     19900819
     A61K031-37; A61K047-26; C07D307-62
IC
     ICM C07D307-62
         A23L003-3544; A61K031-37; A61K031-375; A61K047-26
AB
     JP 04099771 A UPAB: 19931006
     Method in which the acid and/or its deriv(s). are blended with a flavonoid
     glucoside(s).
          The glucoside is pref. one or a mixt. of rutine, quercitrin,
     isoquercetine, peltatoside and hyperoside. Alternatively, the glucoside is
```

pref. a water-soluble flavonoid glucoside(s) prepd. by making a

sugar-transfering enzyme act on one of a mixt. of tutine, quercitrin, isoquercetine, peltatoside and hyperoside in the presence of a lactose or galactoligosaccharide and/or starch. The sugar-transferring enzyme is pref. one or a mixt. of enzymes having an action of transferring the galactose residue and those having an action of transferring the glucose residue.

USE/ADVANTAGE - Method prevents the browning of the acid

FS CPI

FA AB; DCN

MC CPI: B03-F; B04-A07E; B12-M06; D03-H01P; D05-A02B; E06-A01; E07-A02B

L144 ANSWER 25 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1992-157315 [19] WPIDS

TI Browning-preventing agent - comprises ascorbic acid and its derivs. and flavonoid glucoside(s).

DC B03 D13 D16 E13

PA (SANE) SAN-EI CHEM IND LTD

CYC 1

PI JP 04099730 A 19920331 (199219)* 4p JP 2997303 B2 20000111 (200007) 3p A23L003-3544

ADT JP 04099730 A JP 1990-217894 19900819; JP 2997303 B2 JP 1990-217894 19900819

FDT JP 2997303 B2 Previous Publ. JP 04099730

PRAI JP 1990-217894 19900819

IC A23B007-15; A23L001-03; A61K047-22

ICM A23L003-3544

ICS A23B007-15; A23L001-03; A23L001-272; A61K047-22; A61K047-26

AB JP 04099730 A UPAB: 19931006

Agent contains ascorbic acid and/or its deriv(s). and a flavonoid glucoside(s).

The flavonoid glucoside is pref. one or a mixt. of rutine, quercitrin, isoquercetine, peltatoside and hyperoside. Alternatively, the flavonoid is pref. a water-soluble glucoside(s) prepd. by making a sugar-transferring enzyme(s) act on one or a mixt. of rutine, quericitrine, isoquercetine, peltatoside and hyperoside in the presence of lactose or galactoligosaccharide and/or starch. The enzyme is pref. one or a mixt. of those having an action of transferring the galactose residue and those having an action of transferring the glucose residue.

The concn. of the acid and/or its derivs. is usually 0.1-30 wt.%; and the concn. of the glucosides 0.05-30 wt.%. Available ascorbic derivs. include the salts, esters with fatty acids and ethers with sugars. Available agent forms include powder, granule, liq., emulsion and paste. Stabilisers for the acid are opt. added, including metaphosphoric, di- and tricarboxylic, EDTA and phytic acids.

USE/ADVANTAGE - The agent has a high preventing effect

0/0

FS CPI

FA AB; DCN

MC CPI: B03-F; B04-A07E; B12-M06; D03-H01P; D05-A02B; E06-A01; E07-A02B

L144 ANSWER 26 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1992-120693 [15] WPIDS

DNC C1992-056444

Prepn. of easily water soluble flavonol glycoside - from quercetin glycoside and starch, lactose or galacto-oligosaccharide using beta-galactosidase.

DC B02 D16 E13

PA (SANE) SAN-EI CHEM IND LTD

CYC

PI JP 04066098 A 19920302 (199215)* 7p

ADT JP 04066098 A JP 1990-179838 19900706

PRAI JP 1990-179838 19900706

IC C07H017-07; C12P019-60

AB JP 04066098 A UPAB: 19931006

Glucose residue and galactose residue existing easily water soluble

flavonol glycoside is prepd. by reacting galactose residue transferring enzyme and glycose residue transferring enzyme to quercetin glycoside under coexistence of lactose of galactooligosaccharide and starch, to transfer galactose residue and glucose residue to quercetin glycoside, where quercetin glycoside is pref. rutin, isoquercetin, and pertatoside.

Pref. quercetin is rutin, isoquercetin, pertatoside.

USE/ADVANTAGE - Mixt. of flavonoid glycoside obtd. has extremely high water solubility; colour (tone), antioxidant property, UV absorbability are effectively exhibited in aq. media. In an example; To 0.1M phosphate buffer (pH 7.0; 100 ml), lactose (200 g) and dextrin (60 g) were added and dissolved under warming at 60 deg.C. To this, rutin (20 g) contg. DMSO soln. (100 ml) and beta-galactosidase (enzymatic titre 20,000 units; 1 g) and CGTase (enzymatic titre 500 units; 1 g) were added, and stirred at 60 deg. C for 4 hours. Next, mixt. was diluted with H2O (1 1), and flowed to porous polymer (700 ml) packed column in 1 hour; next, ion exchanged water (5 l) was flowed in 1.5 hours, next, 40 v/v meOH (2 l) was flowed in 1 hour to elute adsorbed substance. MeOH soln., was conc. Yellow solid (25 g) was obtd..

FS CPI

FA AB; DCN

MC CPI: B04-A07E; B06-A01; D05-C08; E06-A01

L144 ANSWER 27 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1991-284727 [39] WPIDS

DNC C1991-123285

TI Testosterone-5 (alpha)-reductase inhibitor - useful as a hair cosmetic and skin drug.

DC B05 D21 E19

PA (SHIS) SHISEIDO CO LTD

CYC

PI JP 03188019 A 19910816 (199139)* 6p

JP 2940964 B2 19990825 (199940) 6p A61K031-365

ADT JP 03188019 A JP 1989-325613 19891215; JP 2940964 B2 JP 1989-325613 19891215

FDT JP 2940964 B2 Previous Publ. JP 03188019

PRAI JP 1989-325613 19891215

IC A61K007-00; A61K031-11

ICM A61K031-365

ICS A61K007-00; A61K007-06; A61K031-00; A61K031-05; A61K031-11; A61K031-40; A61K031-70

AB JP 03188019 A UPAB: 19930928

Testosterone-5alpha-reductase inhibitor contains at least one of the cpd. selected from the gp. consisting of phytoxanthin, rubixanthin, lycopene, isoquercitrin, 28-escabic acid glycoside, tolmetin, aldonic acid, phenyl acetaldehyde, indol-3-acetic acid, rugosin (I) A, (I) B, (I) C, (I) D, (I) E, (I) F, (I) G, praecoxin A, leucoanthocyanin, a hair cosmetic contg. at least one selected from the group consisting of the above cpd., a skin drug contg. at least one selected from the gp. consisting of the above cpd.

USE/ADVANTAGE - Inhibitor is useful as a hair cosmetic and skin drug. In an example, a compsn. comprising 0.1 wt.% escarbic acid glycoside, 0.1 wt.% 28-tolmetin glycoside, 0.1 wt.% 28-aldonic acid glycoside, 0.3 wt.% indol-3-acetic acid, 0.1 wt.% plaecoxin, 0.3% of a surface active agent and balance of 75% ethanol gives an area of hair regeneration of 80.2%, compared to 8.0% for the control (75% ethanol only). @(6pp Dwg.No.0/0)

FS CPÍ

FA AB; DCN

MC CPI: B03-A; B04-A06; B04-A07E; B06-A01; B06-D01; B07-D02; B10-A07; B10-D01; B12-A07; B12-G01B1; B12-L05; D08-B03; D08-B09A; E06-A01; E06-D01; E07-A02H; E07-D02; E10-D01D; E10-E04M1; E10-J02C4

L144 ANSWER 28 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AN 1991-284724 [39] WPIDS

DNC C1991-123282

TI Hair tonic material having high effect and safety - contg. anionic and

```
nitrogen-contg. surfactants, with indole-acetic acid, phenyl
     aceto-aldehyde, etc..
DC
     D21 E19
PA
     (SHIS) SHISEIDO CO LTD
CYC
                 A 19910816 (199139)*
                                              12p
                  B2 19990317 (199916)
                                              10p
                                                     A61K007-06
     JP 03188015 A JP 1989-325614 19891215; JP 2871764 B2 JP 1989-325614
ADT
FDT JP 2871764 B2 Previous Publ. JP 03188015
PRAI JP 1989-325614
                      19891215
IC
     A61K007-06
     ICM A61K007-06
     ICS A61K007-00
ICA A61K007-075; A61K007-08; A61K007-11
     JP 03188015 A UPAB: 19930928
AB
     The hair tonic material contains one or a mixt. of phytochisantin,
     rubichisantin, lycopene, isoquercitrine, 28-escabic acid
     glucoside, tolumentic acid, arjunic acid (Sic), phenylacetoaldehyde,
     indole-3-acetic acid, rugosins A, B, C, D, E, F, and G, plaecoxyn A (Sic)
     and leucoanthocyanin, one or a mixt. of anionic surfactants, and one or a
     mixt. of nitrogen-contq. surfactants other than anionic ones.
          USE - For providing a tonic material having a notably high tonic
     effect and high safety.
     0/0
FS
     CPI
     AB; DCN
FA
     CPI: D08-B03; E06-A01; E06-D01; E09-B; E10-D01D; E10-E04M1; E10-J02A;
MC
          E10-J02C4
L144 ANSWER 29 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
     1990-302405 [40]
                        WPIDS
DNC
    C1990-130673
     Anthocyanin stabilisation - using flavonol, water-soluble antioxidant and
TI
     phosphate, for food, etc..
DC
     D13 E24
     (SANE) SAN-EI CHEM IND LTD
PΑ
CYC
     JP 02214780 A 19900827 (199040)*
PΙ
ADT JP 02214780 A JP 1989-34735 19890214
PRAI JP 1989-34735
                      19890214
     A23L001-27; C09B061-00; C09K015-06
IC
     JP 02214780 A UPAB: 19930928
ΑB
     Anthocyanin is stabilised by flavonol, water-soluble antioxidant and
     phosphate. Pref. flavonal is one or their mixt. of morin, rutin,
     isoquercitrin, quercitrin, quercetin, gossypetin, gossypetrin,
     gossypine and herbacetin. Flavonol glucoside is reacted with partial
     hydrolase to obtain flavonol O-monoglucoside and starch, which are reacted
     with glucosidase and/or transglucosidase to obtain one or mixt. of
     flavonoid glucoside, which is used as flavonol. Flavonol glucoside and
     starch are reacted with glucosidase and/or transglucosidase. Equimolar or
     more of glucose residues are transferred to give one or mixt. of
     flavonoid glucoside as flavonol. The antioxidant is one or mixt. of
     ascorbic acid, sodium ascorbate, erysorbic acid, sodium erysorbate,
     ethylenediaminetetraacetic acid ceasium- or ethylenediaminetetraacetic
                    Phosphate is sodium- or potassium-metaphosphate,
     acid-disodium.
     potassium-or sodium-polyphosphate, sodium pyro, potassium pyro or sodium
     monophosphate.
          USE/ADVANTAGE - Method is used to give stable quality of foods e.g.
     pref. food, drinks and processed food contq. natural anthocyanin pigment
     which are labile against heat, light and oxygen. It protects against
     fading and discoloration. It protects anthocyanin pigment against fading
     and discoloration.
     0/0
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CPI

AB

FS FA

CPI: D03-H01E; D03-H01Q; E06-A01; E07-A02B; E10-B01C; E25-E02; E31-K06 MC L144 ANSWER 30 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1988-341542 [48] WPIDS DNN N1988-258932 DNC C1988-151036 TIDiagnostic agents for polymorphonuclear leukocyte function - comprising flavonoid or its glycoside as active ingredient. B02 B04 S03 DC (COSM-N) COSMO KAIHATSU KK PA CYC ΡI JP 63253254 A 19881020 (198848)* 3p 3p JP 07037980 B2 19950426 (199521) G01N033-50 JP 63253254 A JP 1987-87181 19870410; JP 07037980 B2 JP 1987-87181 19870410 JP 07037980 B2 Based on JP 63253254 PRAI JP 1987-87181 19870410 IC C07D311-30; G01N033-50 AΒ JP 63253254 A UPAB: 19930923 A diagnostic agent comprises a flavonoid (I) or its glycoside as an active ingredient. (R1-R9 each = H, hydroxy or methoxy). Examples of (I) and their glycosides: typical flavonoids (I) include myricetin, morin, quercetin, kaempferol, kaempherid, fisetin, datiscetin, robinetin, quercetagetin, ramnacin, hibiscetin, pratol, apigenin, acacetin, luteolin, etc. Typical flavonoid glycosides includes isoquercitrin, rutin, myricitrin, narcissin, toringin, cosmosiin, diosmin, etc. USE - Diagnosis of function of polymorphonuclear leukocyte is useful in examination of immune function or autoimmune disease. 0/0 FS CPI EPI FAAB; GI; DCN CPI: B04-B04D1; B06-A01; B06-A03; B06-E04; B11-C07B1; B12-K04A MC EPI: S03-E09E; S03-E14H L144 ANSWER 31 OF 34 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD 1986-335081 [51] WPIDS DNC C1986-145267 ΤI Preparation of drug from medicinal plants - is effective for gastric cancer and ulcer. DC PA (SAKU-I) SAKURAI K CYC PΙ JP 61249929 A 19861107 (198651)* 2p ADT JP 61249929 A JP 1985-89800 19850425 PRAI JP 1985-89800 19850425 IC A61K035-78 JP 61249929 A UPAB: 19930922 AB Raw chickweed (Stellaria media), a bad-smelling perennial plant (Houttuynia car data) and a creeping saxifrage (Saxifrage stolonifera) are crushed into a mixt., which is formed into liq. drug, granule or powdery drug. (1) Chickweed has been used for prevention of pyorrhea alveolaris and bleeding from teeth ridge. (2) The bad-smelling plant contains quercitrin, isoquercitrin, decanoylacetaldehyde and laurylaldehyde, has urinative and anti-poison working effective for hypertension, piles and constipation. (3) The creeping saxifrage contains potassium nitrate, potassium chloride, etc. and has urinative and anti-poison working effective for inflammation of the middle ear, swelling, burn, a cold, or dropsy. USE/ADVANTAGE - Gastric cancer and ulcer.

In an example, fresh chickweed (80g), fresh bad-smelling perennial plant (80g) and creeping saxifrage (80g) were washed, crushed in a mixer to form a mixt., to which water (400-500cc) and an approp. amt. of honey were added. 80 g of the mixt. was taken 3 times a day for 1-2 months. Gastric cancer and ulcer were improved. The liq. mixt. was dried and form into granule or powder together with a flavour.

```
0/0
     CPI
FS
FΑ
     CPI: B04-A07F2; B06-A01; B10-D01; B12-D07; B12-D08; B12-E08; B12-F05;
MC
          B12-G03; B12-G07; B12-J05; B12-J06; B12-J07; B12-L03
L144 ANSWER 32 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
     1979-05998B [03]
AN
                        WPIDS
     Suppressing herpes simplex virus - by topical admin. of an extract of
ΤI
     mountain ash berries.
DC
PΑ
     (BEAN-I) BEAN S
CYC
     US 4132782
                 A 19790102 (197903)*
PΤ
PRAI US 1977-798585
                    19770519
     A61KU39-78
IC
AB
          4132782 A UPAB: 19930901
    Effective treatment is obtd., esp. when applied to the lips of the mouth
     to give rapid clearance of lesions. The compsn. pref. contains 0.1-20%
     extract, esp. 1% berry juice. The extract may be obtd. by using e.g.
     i-PrOH or aq. i-PrOH for extraction. A pref. compsn. is an ointment
     contg. 1% berry juice. Extraction is at 20-100 degrees C for 10-45 days,
     pref. with 1-5 times the volume of berries, of 70-95% aq. i-PrOH. The
     extract is filtered and may be concd. Juice from the berries may be used
     instead of whole berries.
          A topical ointment may contain 1-5% extract, which may also have been
     evapd. in vacuo or freeze dried. The extract has been found to contain
     hydroxycinnamic acids, anthocyanin, leucoanthocyanin, various flavonals,
     beta-carotene and its monoepoxide, cryptoxanthin, violaxanthin, gallic
     acid, naringin, meratin, asozane, isoquercetin and isoquercitrin
     CPI
FS
FA
     AB
MC
     CPI: B04-A07F; B12-A06
L144 ANSWER 33 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
     1978-43178A [24]
                       WPIDS
ΑN
ΤI
     Orally administered prepn. for treating athletes foot - contains softened
     or dried powder extract of Houttuynia cordata.
DC
     B04 C03
     (INAG-I) INAGAKI G
PΑ
CYC 1
     JP 53050313 A 19780508 (197824)*
PΤ
PRAI JP 1976-122925
                    19761015
IC
    A61K035-78
     JP 53050313 A UPAB: 19930901
AB
     An orally administrable prepn. which comprises softening extract or dry
     extract (powder) of Houttuynia cordata is new. Huttuynia cordata contains
     decanoylacetaldehyde which has an unusual smell and shows anti-fungal and
     anti-bacterial activity. The leaves contain quercitrin which has a potent
     diuretic action, and minerals (HCl and K2SO4). Additionally, quercitrin
     and isoquercitrin exhibit an action strengthening the blood
     vessel. The invention was made on these facts.
          Prepn. is effective against incurable athlete's foot. Virulent
     athlete's foot not cured by a dermatologist was completely healed by oral
     administration of extract of Huttuynia cordata over 2 months.
FS
     CPI
FΑ
     AB
     CPI: B04-A07F; B05-A01A; B05-C07; B06-A01; B10-D01; B12-A01; B12-A02;
MC
          B12-A07; B12-E01; B12-G03; C04-A07F; C05-A01A; C05-C07; C06-A01;
          C10-D01; C12-A01; C12-A02; C12-A07; C12-E01; C12-G03
L144 ANSWER 34 OF 34 WPIDS COPYRIGHT 2000
                                             DERWENT INFORMATION LTD
ΑN
     1967-09394G [00]
                        WPIDS
TI
     Feedstuff for silkworms contng polyhydroxycarboxylic.
DC
     C00
```

PA (HAMY) HAMAMURA Y

CYC 1

PI US 3328170 A (196800)*

PRAI JP 1963-11944 19630306

AB US 3328170 A UPAB: 19930831

A feedstuff for silkworms contng. biting factor (BF) and swallowing factor (SF), together with a polyhydroxycarboxylic acid (I) or a salt or ester of I. An attracting factor (AF) is opt. present.

Artificial feedstuff for silkworms, which normally only eat mulberry leaves. I acts as a feed-intake promoter.

AF is a terpene, e.g. citral, linalyl acetate, linalol, and terpinyl acetate. AF may be omitted if the silkworms are placed on the feed. BF is beta-sitosterol with or without flavonoids such as quercetin, morin, rutin, and isoquercitrin. SF is cellulose powder. I is e.g. an aromatic polyhydroxy acid such as chlorogenic acid, caffeic acid, gallic acid, gentisic acid, homogentisic acid, resorcylic acid and quinic acid.

FS CPI

FA AB

MC CPI: C10-A07; C10-C03; C10-C04; C10-E02; C10-E04; C12-L09